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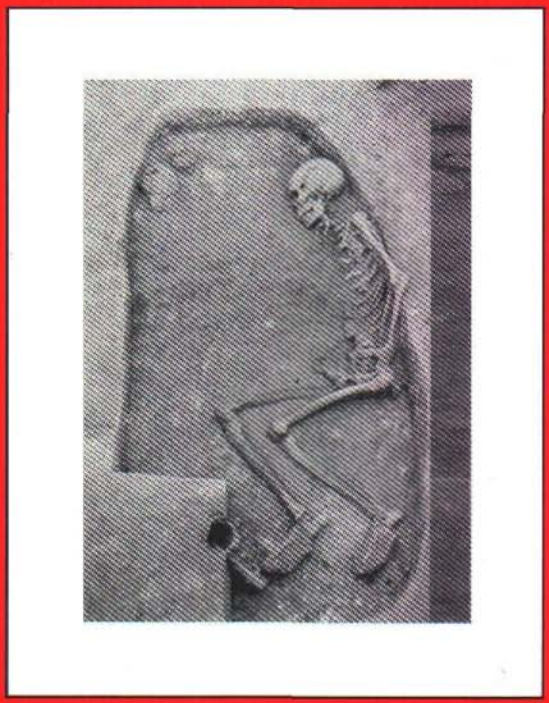

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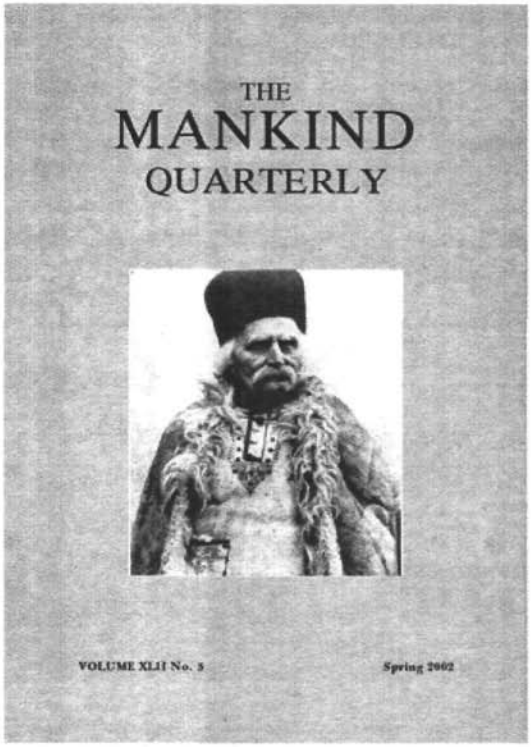

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Cover Picture: Skeleton of a crippled male, ritually placed, unusually, in the same grave as a high status female in a Gothic cemetery in Poland. (See article: *An Atypical Burial at the Gothic Cemetery in Masłomęcz, Lublin Province (Poland)*).

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An Atypical Burial at the Gothic Cemetery in Masłomęcz, Lublin Province (Poland)

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The history of Gothic migrations is presented, as the movements of a tribe who alone among the Germanic peoples wandered through Europe along numerous routes. Grave mounds with surrounding stones and stone circles built of irregular shaped boulders are the first traces of Goths' presence in Polish Pomerania. They are analogous to the cemetery circles of Scandinavia. Goths, who reached the Hrubieszowska basin (Fig. 1), marked circles with graves (Fig. 2) because of the lack of material (stones) in new areas for the construction of the characteristic stone circles.

Skeletal burials, sometimes containing also burnt bones, partial graves, atypical circles and the lack of military grave accessories are the characteristics of Gothic burial rituals of Masłomęcz in the Hrubieszowska Basin.

An atypical burial was discovered in the cemetery in Masłomęcz – a great hole (No 427) (Fig. 2) of 400 x 180 cm dimensions, which contained two graves. The grave placed at a higher level revealed a well preserved skeleton of a 25-35 year-old man, while the lower grave, with traces of purposeful secondary disturbance, in a coffin, revealed an incomplete, destroyed and richly equipped skeleton of a young woman. The man, whose skeleton was atypically positioned (Fig. 4) was, according to Kokowski (1997), bound before death. He was of a medium height (about 168 cm), and rather massive body build (his body mass oscillated within 65.2 – 73.0 kg). The pathological lesions caused by an open sacral bone injury or by a neoplastic process, found within the pelvic girdle, prove that he was disabled and had locomotion disorders. Also, small carietic defects, paradontosis and hypoplasia were found.

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Kokowski (1998a) suggests that the man was an "offering" made to the woman, who – judging by the character of her grave, its equipment and skeleton condition – must have been an exceptional person. "Sacrificial" graves are known from Gothic cemeteries of Pomerania region and from Gródek on the river Bug; however, healthy soldiers were usually the "offerings" and not cripples as in the described case. It seems that this atypical burial proves a special, but today hard to determine, relationship between the deceased woman and the man.

Key Words: Goths cemetery, atypical burial, pathology, Lublin Province, Poland, Hrubieszowska Basin, stone circles, sacrifice.

Introduction

The migrations of Goths still present one of the most interesting problems for historians, archaeologists and anthropologists. The oldest sources locate Goths between the tribes of Marcomans, to Poland's South of modern Polish borders and the land of Burgunds, in Poland's North-West. The archeological research, on the other hand, indicated the provinces of Öster- and Västergötland on Gotland as their probable homeland (Mączyńska 1996). The Goths wandered along various routes throughout Europe. The first migrations from Scandinavia to the Black Sea and then through the Balkans to Italy, left numerous traces of settlements and cemeteries in Poland, located in areas between the estuaries of the rivers Vistula and Odra, through Kaszuby Lake District, Masovia and Lublin Upland as far as the Hrubieszowska Basin (Fig.1). The oldest certain traces of Gothic presence in northern Poland are grave mounds surrounded by stones and stone circles built of irregular shaped boulders found in Odry and Leśno. The lack of traditional material for the stone circle construction in the region of the Hrubieszowska Basin caused the Goths to form circles of graves (Fig. 2) (Kokowski 1998a). Subsequent groups of Goths forced established Goths from the area of the River Vistula southwards and eastwards. The migration route of individual Gothic groups along the big rivers of Masovia, Podlasie, Wołyń and the Ukraine in the direction of Roman settlements in Tracia, was marked with bi-ritual burials (cremation and inhumation) without arms. Further South, the assimilation with Sarmatian and Greek culture increased gradually (Strzelczyk 1984).

In 1978 a big settlement was discovered in Masłomęcz in the

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Hrubieszowska Basin, (stands No 8 and 9) and a cemetery a year later (stand No 1 C and 15).

The following forms of burials were found in this cemetery: crematory, crematory – skeletal, complete skeletal, fractional skeletal and the so-called symbolic burials. The last contained mainly animal bones or their fragments (mostly consumption waste) and some of them contained only objects (e.g. clay vessels, clothing elements, iron and bronze ornaments and stones fulfilling magic functions) (Rutkowska 1989, Kokowski 1995). In several cases animals were buried with the dead individual (Nadachowski, Wolsan 1989). Mainly the remains of domestic animals were found in Masłomęcz, while in the other Gothic stand in the Hrubieszowska Basin, in Gródek on the river Bug, also the remains of wild animals were found, i.e. two burials of swamp turtles from 1 C stand of the Masłomęcz group. They might have been a kind of symbolic burial or an offering made to the buried persons, since many Germanic peoples observed a fairly popular custom of placing sacrificial animals in tombs (Szyndlar 1989). Dignitaries of some Germanic tribes from Scandinavia (Skedemosse on Öland island) were brought offerings of prisoners of war or their fellow-tribesmen. It is not unlikely that similar traditions of human sacrifices might have arrived with Goths from Gotland to the southern shore of the Baltic Sea and the further, to Masłomęcz.

Single and, less frequently, double burials were found in Masłomęcz (1993 – 1997) with the skeletons not always in anatomical position. The bodies of a woman and a child, or small children (infans I) were probably buried in one grave as a rule, since so far no double burials have been found containing complete skeletons of adults (Dąbrowski, Szczurowski 1996; Dąbrowski, Krzyżanowska, Szczurowski 1999). The most unusual form of a burial ritual in the Masłomęcz group are the numerous (39%) fractional burials, i.e. ones containing only some parts of the corpse. The remains of a given person were probably divided into parts and buried in separate graves in various parts of the cemetery (Malinowski 1989; Dąbrowski, Szczurowski 1996). So far, the most frequently found part in the fractional graves has been the lower skeleton, i.e. lumbo-sacral vertebral column and lower extremities (Kokowski 1986), less frequently only the skull was missing. Since typical equipment (beads, buckles) were found in most fractional graves, it is

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assumed that they are fractional due not to robbery but because of the existing custom. Four storeyed graves were found among the fractional graves. Each of them contained a part of the same person's skeleton, probably a mother, also buried in the graves of her three children. According to Malinowski (1989) the practice of dividing the corpse might have constituted a part of a customary burial ritual. Sporadic graves containing burnt bones of another individual, accompanying the complete skeleton of one person, constitute a peculiar burial form (Kokowski, Kurzątkowska 1988).

Description of the Atypical Burial

A so far unknown burial form in the Masłomęcz group was discovered in 1996. It is a hole (no 427) located in the northern part of the hill on which the cemetery was situated, about 8 m from the centre of necropolis (Fig. 2). The hole significantly differed in size (400 x 180 cm) from the ones discovered so far and contained two graves. A well preserved skeleton of a 25 – 35 year-old male was discovered in one of them at the depth of 133 cm, while the other one, 240 cm deep, contained the remains of a young woman.

The female skeleton was buried in a long (380 cm) coffin, hollowed out of a tree trunk. The bones were disturbed, damaged and incomplete, especially in the thoracic segment, and the skull was crushed. The crural bones were crossed at the level of the tarsal joints (Fig. 3). The condition of the skeleton suggests that it was disturbed in order to use the woman's bones for the production of amulets and for taking over in this way her possibly unusual abilities or for safeguarding against her comeback or her supernatural power by destroying the skull and bones and taking away some of them (Kokowski 1998b). The poor preservation condition of the female skeleton only allowed for the determination of her sex and age as well as for finding carietic defects in the preserved left first molar tooth of mandible and in the second premolar and second molar tooth of the left jaw. Numerous "votive" objects, such as a bowl made on the potter's wheel and a carefully hand-made burial vessel, a bird skeleton (sacrificial animal?), a wooden chest fitted with bronze and iron, a silver buckle, a necklace of glass and amber beads, whorls, a needle-case made of bird bone and a horn comb as well as the so-called sacred stones of the Goths,

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accompanying the deceased, emphasise her social position (Kokowski 1998 b, c). The fact of filling the grave hole with limestone marl, intentionally brought from the distance of about 35 km, might be regarded as an additional indicator of a high social rank of the dead woman.

The male skeleton, placed on its right side with its back supported against the eastern wall of the grave hole, had its legs bent in knee joints and its right upper extremity placed along the trunk, while the left one rested on the pelvis (Fig. 4). The atypical position of the skeleton suggests that the man might have been bound before his death (Kokowski 1997). The skeleton was accompanied by two vessels and an iron strap buckle.

Sex and age were determined basing on the generally adopted criteria (Acsadi, Nemeskeri 1970; Ubelaker 1978; Martin, Saller 1988). The massive bone structure and typical, for the male sex, characteristics of the skull and pelvic girdle prove the sex, while the young age is proved by, among others, the lack of complete ossification of growth cartilage (Ubelaker 1978; Lovejoy 1985). Basing on the measurements of the better preserved both humeral bones as well as the bones of the left forearm, the body height and massiveness index were calculated (Martin, Saller 1988). The intravital body height (according to Trotter, Gleser 1952) approximately amounted to 168 cm and was within the medium variability range of the male body height ($\bar{x}$ = 168.6; s = 4.9) from the Masłomęcz population, wherein medium and tall individuals prevailed (Szczurowski 1997), and the approximate body mass was about 65.2 – 73.0 kilos.

The poor preservation condition of the skull was the reason why only 8 out of 32 selected non-metric characteristics could be observed (Berry and Berry 1967, Czarnetzky 1972). There was no: *torus acusticus, foramen acusticum Huschkei, torus maxillaris, foramen zygomaticofaciale, foramen supraorbitale,* or *foramen mentale accesorium,* while there was bilaterally M_3 in the jaw and right M_3 in mandible. There were only 12 teeth preserved in the jaw and 15 in mandible. The abrasion of dental tuberculi of the first and second molar teeth of the jaw and mandible was 3° and 4° according to Miles (1963). Parodontosis and carietic defects were found on the masticatory surface of the first, left molar tooth of mandible as well as the second molar tooth, and on the second premolar tooth (at the glossal side of its neck) of the left

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jaw. Hypoplasia was found in the form of a line in the central part of the crown on the second mandible incisors. Based on the measurements of the distance between the enamel cement limit (CEJ) and the defect spot, it was determined that the development age when the disturbance of the enamel production process occurred (Goodman et al. 1980) was 2 – 3 years. Hypoplasia was obviously caused by the so-called "weaning stress". The increase of hypoplasia between the age of 1 and 3 was observed in the majority of the so far examined skeletons from the Masłomęcz cemetery (Dąbrowski 1997). According to many authors, such a process at the age of 1 – 4 is characteristic of settled populations, moving from the picking-hunting to farming lifestyle.

Pathological Lesions (Morphological Examinations, X-ray and CT)

Extensive pathological lesions were observed in the lumbar part of vertebral column and within the pelvic girdle. The vertebral bodies of lumbar vertebrae, on the left side, are lowered, and the pelvis is asymmetric and significantly deformed (Fig. 5). Apart from the asymmetry, extensive destructive-reparative changes are visible in the sacral bone on its pelvic and dorsal surface as well (Fig. 6 and 7). Superior aperture of canalis sacralis is asymmetric and considerably narrowed. The base of the sacral bone (S1) is more massive on the right side, and also the right articular process is more massive and bigger than the left one (its articular facies is flattened and surrounded by a wall-like thickening) (Fig. 6a and b). The enlarged, massive right part of the S1 body is shifted onto the lateral bone part (Fig. 6a). On the pelvic surface between the S1 and S2 bodies there is a fissure, bilaterally widened with accompanying pathologically changed pelvic foraminae (Fig. 6c). The two latter changes result from developmental disorders: massiveness of the right part of the sacral bone base is a result of partial assimilation of the last lumbar vertebra (*lumbalisatio partialis*), while the fissure between S1 and S2 proves incomplete accretion of both vertebral bodies. In the remaining part, mainly on the left side, there are extensive lesions with uneven margins and traces of new bone formation, deformations of pelvic foraminae as well as much new bone formation caused by the inflammatory process (Fig. 6d and f). The developmental changes and similar

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destructive lesions as well as new bone formation of the osseous tissue are present on the dorsal bone surface (Fig. 7a, b and c). The macroscopically described lesions are of post-traumatic character. The trauma probably occurred in childhood. It must have been serious and open, and the secondary infection caused the bone inflammatory state. As a consequence, after a long healing period, the sacral bone and the whole pelvis were considerably deformed, lumbar vertebrae bodies lowered to the left side and sacroiliac as well as hip joints positioned asymmetric (Fig. 5). Locomotion disorders were a further consequence of these changes.

The radiological examination and CT scan confirm the partial lumbalisation of the last lumbar vertebra and the changes after the healed fracture of the lower part of sacral bone most likely caused by direct trauma (Fig. 8a, b, c and d). Both figures show high densification of the osseous tissue, on the right side, of the lateral part of the first sacral vertebra S1 (Fig. 8d), the preserved fissure between S1 and S2 (Fig. 8b), extensive lesion on the left side of the bone (Fig. 8c) and new bone formation (Fig. 8d). The widening of the sacral canal (Fig. 9) was created as a result of leptomeningeal cyst formation, which in turn might have resulted from trauma and lesions caused by it, or as a result of neoplasm developing in the canal – a neuroma.

The presented post-traumatic lesion should be distinguished from a pathological fracture. It might have occurred as a result of the decrease of mechanical resistance caused by excessive widening of the sacral canal, as a consequence of a neoplasm – neuroma developing in it or a leptomeningeal cyst (Ortner, Putschar 1981, Aufderheide, Rodriguez-Martin 1998). However, the macroscopic and radiological images as well as CT scan prove a rather post-traumatic genesis of the presented lesions. The fractures complicated by the inflammatory process are relatively frequently observed in the archeological osseous material (Gładykowska-Rzeczycka 1989).

Results and Discussion

The unit in which two graves are located in one common grave hole (No 427) has been, so far, the only burial of this type observed in the Gothic cemeteries in Poland. Its uncommon character consists not so much in the fact of stratified placement

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of both graves, as mainly in the fact that the female grave was richly equipped and filled with limestone marl, the skeleton incomplete and seriously damaged, which indicates that the grave was purposefully opened (Kokowski 1998c). On the other hand, the well preserved male skeleton was atypically positioned and bears signs of a serious disability. The reason for this form of burial, suggesting a specific relationship between them, should be explained. Kokowski (1998a) assumes that the male burial is of sacrificial character, since, as in case of sacrificial burials known from Pomerania region, it was very scantily equipped. Both were young. The man was disabled as a result of a serious open injury of the sacral bone, suffered at a young age or of a chronic neoplastic process, while the woman was a very important person in the tribal hierarchy. What did they have in common? There might have been many reasons and all of them are difficult to determine today. Perhaps finding a similar burial will solve this riddle.

References

Acsadi G.; J. Nemeskeri
1970 History of human life span and mortality, Budapest.

Aufderheide A. C.; C. Rodriguez-Martin
1998 *The Cambridge Encyclopedia of Human Paleopathology*, Cambridge University Press.

Berry A. C.; R. J. Berry
1967 Epigenetic variation in the human cranium, *Journal of Anatomy*, 101, 2, 361 – 379.

Czarnetzky A.
1972 Epigenetische Skeletmerkmalle im Populations III, *Zeitschrift für Morfologie und Antropologie*, 64,145 – 158.

Dąbrowski P.
1997 Dentition state of population from Masłomęcz cemetery (II – IV A.D.) – typescript (in Polish).

Dąbrowski P.; J. Szczurowski
1996 Report on anthropological analysis of bone remains from 15 Masłomęcz stand concerning research in period of 1994 – 1995, *Archeology of the Middle-East of Poland*, 1, 91 – 93 (in Polish).

Dąbrowski P.; M. Krzyżanowska; J. Szczurowski
1999 Anthropological analysis of bone remains from Goth cemetery in Masłomęcz (stand 15) season 1998, *Archeology of the Middle-East of Poland*, 4, 135 – 138 (in Polish).

Gładykowska-Rzeczycka J.
1989 *Diseases of ancient Polish population from Neolithic to Middle-Ages*, Archeological Museum in Gdańsk (in Polish).

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ELECTRONIC REPRODUCTION PROHIBITED

Goodman A. H.; G. J. Armelagos; J. C. Rose
1980 Enamel Hypoplasias as Indicators of Stress in Three Prehistoric Populations from Illinois, *Human Biology*, 52, 515 – 528.

Kokowski A.
1986 Cultural interpretation of materials of Masłomęcz type, [in:] *Western Settling Zone of Czerniachovsky Culture*, 71 – 90, Lublin (in Polish).
1995 Masłomęcz group, *UMCS Lublin* (in Polish).
1997 Seventeenth season of research on Masłomęcz group cemetery, stand 15, Zamoyski voivodship, *Archeology of the Middle-East of Poland*, 2, 117 – 120, Lublin (in Polish).
1998a Cemeteries of Masłomęcz group, *Anthropological Studies*, V, 65 – 89, *Acta Universitatis Wratislaviensis* 2050, Wrocław (in Polish).
1998b Archeology of tragedy – tragedy of archeology [in:] *Living Archeology*, 2/7, Warszawa (in Polish).
1998c Eighteenth season of research on Masłomęcz group cemetery in Masłomęcz, stand 15, Zamoyski voivodship, *Archeology of the Middle-East of Poland*, 3, 125 – 129, UMCS Lublin (in Polish).

Kokowski A.; U. Kurzątkowska
1988 Nineteenth season of research of stand 15 in Masłomęcz, Hrubieszów commune, Zamoyski voivodship, *UMCS Lublin*, 31 – 38 (in Polish).

Lovejoy C. O.
1985 Dental wear in the Libben population: its functional pattern and role in the determination of adult skeletal age of death, *American Journal of Physical Anthropology*, 68, 47 – 56.

Malinowski T.
1989 Remarks on burial ritual on Masłomęcz cemetery, [in:] Vielbarski Culture in Early Roman Period, II, J. Gurba, A. Kokowski (ed.), Lublin (in Polish).

Martin R.; K. Saller
1988 *Lehrbuch der Antropologie*, Stuttgart.

Mączyńska M.
1996 *Migrations of people. History of turbulent epoch of IV and V century*, PWN Warszawa – Kraków (in Polish).

Miles A.
1963 The dentition in assessment of individual age in skeletal material, [in:] *Dental Anthropology*, D. R. Brothwell (ed.), Pergamon Press, New York, Paris.

Nadachowski A.; M. Wolsan
1989 Archeo – zoological assessment of animal remains from stands of Masłomęcz group (early period of Roman influences), South – Eastern Poland, [in:] *Vielbarski Culture in Early Roman Period*, II, J. Gurba, A. Kokowski (ed.), Lublin (in Polish).

Ortner D. J.; W. G. J. Putschar
1981 Identification of pathological conditions in human skeletal remains, Smithsonian Contribution to *Anthropology*, 28, Smithsonian Institution Press, Washington.

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Rutkowska B.
1989 Masłomęcz group in light of archeological – anthropological research (Masłomęcz, stand 15), [in:] *Vielbarski Culture in Early Roman Period*, II, J. Gurba, A. Kokowski (ed.), Lublin (in Polish).

Strzelczyk J.
1984 *Goths – reality and legend*, PIW, Warszawa (in Polish).

Szczurowski J.
1997 Preliminary assessment of intravital body height of Goth males and females of Masłomęcz group, Masłomęcz 15 stand, *Archeology of the Middle-East of Poland*, 2, 121 – 123 (in Polish).

Szyndlar Z.
1989 Remains of Emys orbicularis (L. 1758) from Masłomęcz group stand, [in:] *Vielbarski Culture in Early Roman Period*, II, J. Gurba, A. Kokowski (ed.), Lublin (in Polish).

Trotter M.; G. C. Gleser
1952 Estimation of stature from long bones of American Whites and Negroes, American *Journal of Physical Anthropology*, 10, 463 – 514.

Ubelaker D. H.
1978 Human skeletal remains. *Excavation, Analysis, Interpretation*, Aldine Publishing Com., Chicago.

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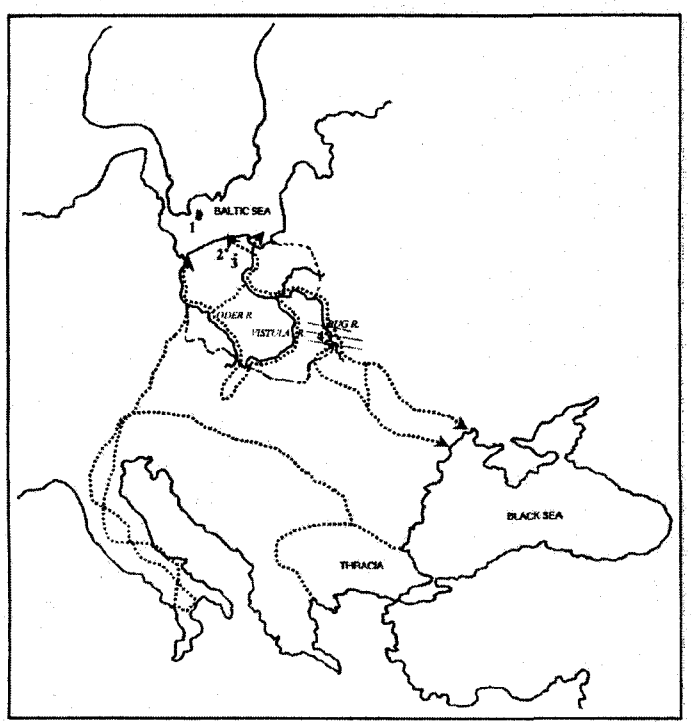

Fig. 1. The cradle, trails and traces of Goths' presence in the area of Poland.

Legend:
1 – Gotland
2 – Leśno
3 – Odry
4 – Gródek
5 – Masłomęcz

Hrubieszovski Valley

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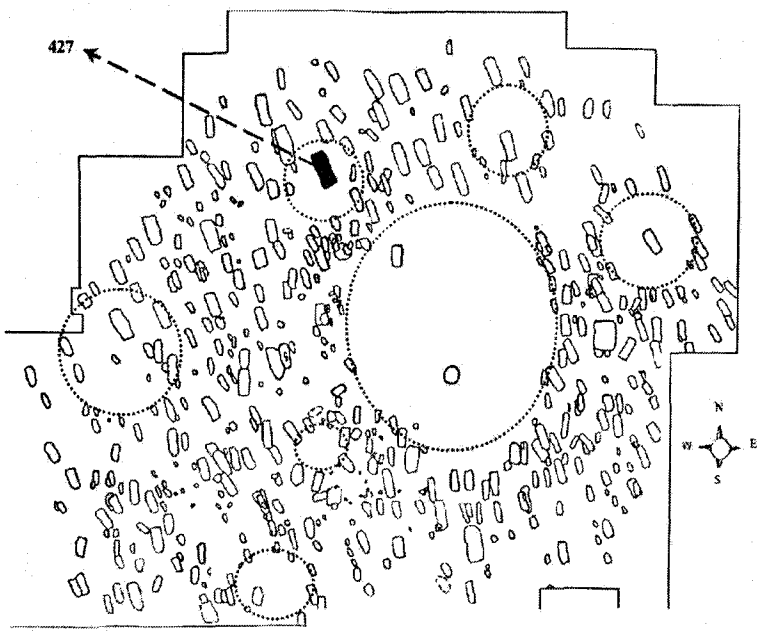

Fig. 2. Diagram of the Gothic cemetery from the stand in Masłomęcz with marked grave hole No 427 and several circles created by graves.

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Fig. 3. Female skeleton in the coffin; incomplete and destroyed.

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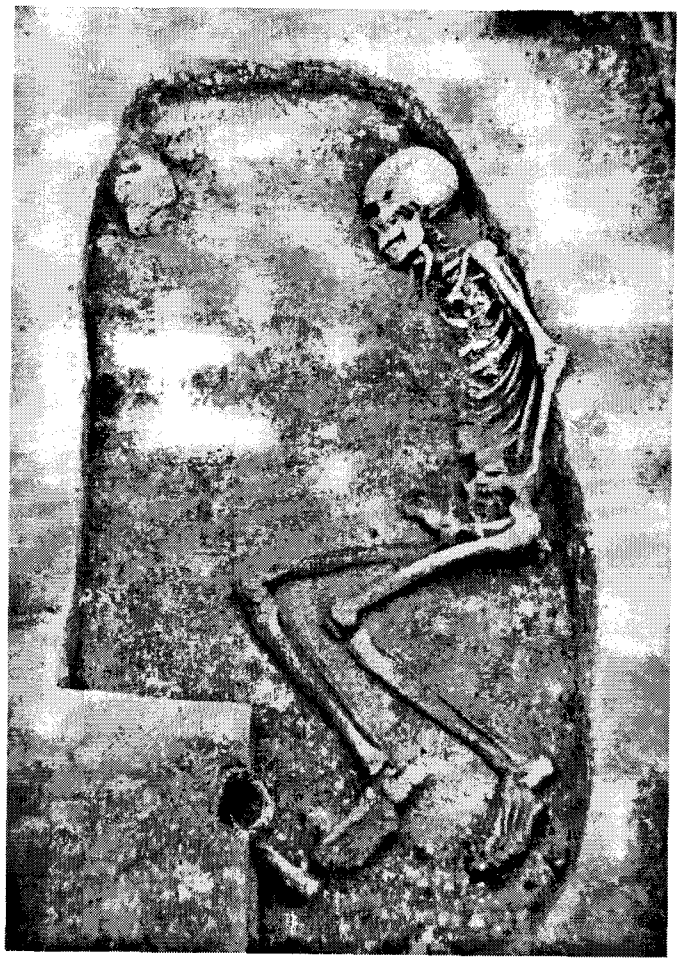

Fig. 4. Untypically placed male skeleton.

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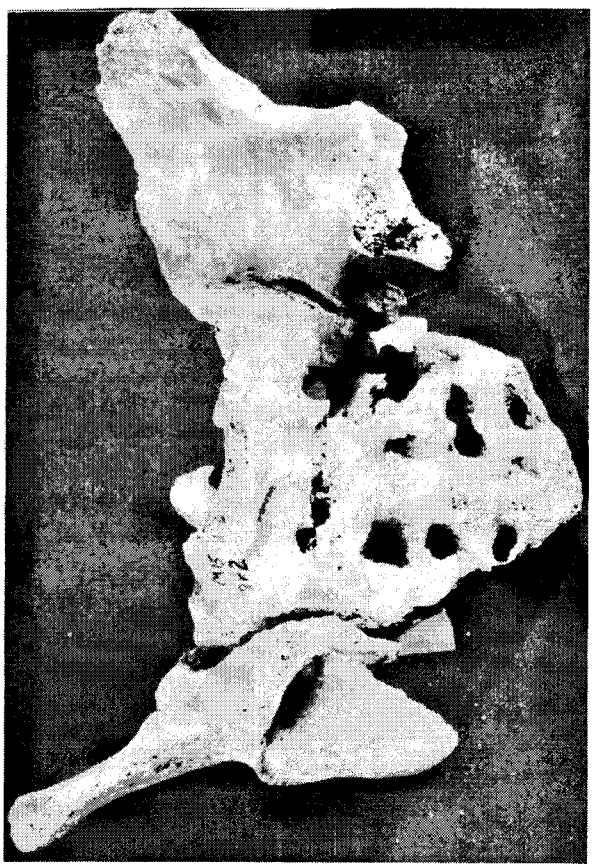

Fig. 5. Male pelvis with visible sacroiliac and hip joints asymmetry; frontal view.

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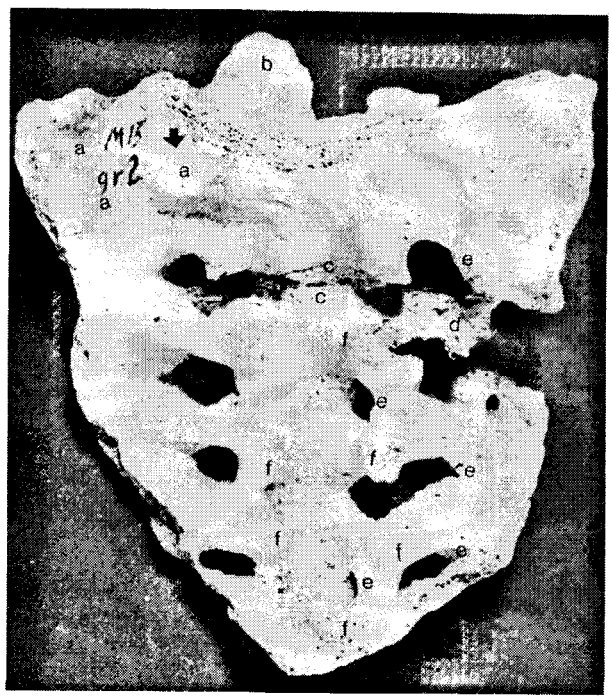

Fig. 6. Male sacral bone with extensive pathological lesions occurring mainly on the left side, frontal view: a) massive lateral part and the right lateral part of the body – arrow, b) right articular process, massive and with degenerative lesions, c) unfused bodies of the first and second vertebral bodies, d) extensive destructive lesion with traces of new bone formation at the margins, e) deformed pelvic foramina, f) additional new bone formation.

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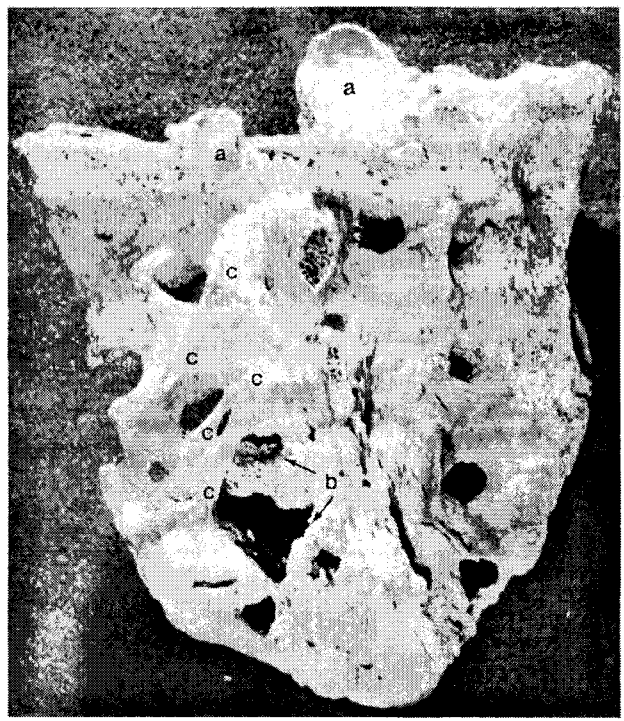

Fig. 7. Sacral bone (as above) seen from behind: a) asymmetric and of different size articular processes, b) extensive defect in the lower bone segment with traces of new bone formation at the margins, c) newly formed osseous tissue - a result of post-traumatic healing.

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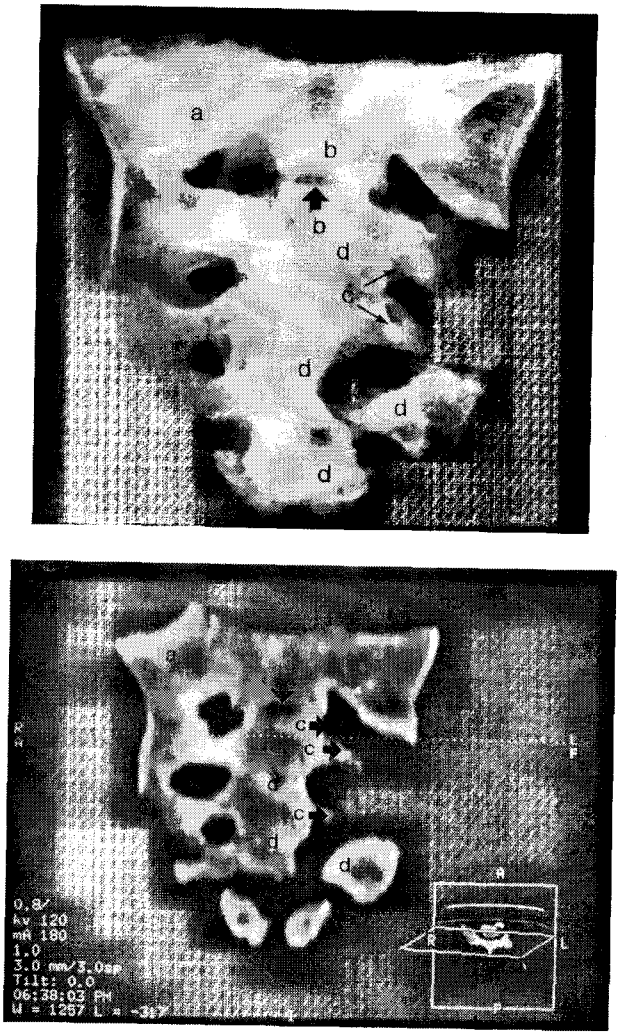

Fig. 8. Sacral bone x-ray image and CT scan: a) the change caused by partial lumbalisation, b) fissure between S1 and S2, c) extensive lesions with traces of new bone formation, d) additional new bone formation.

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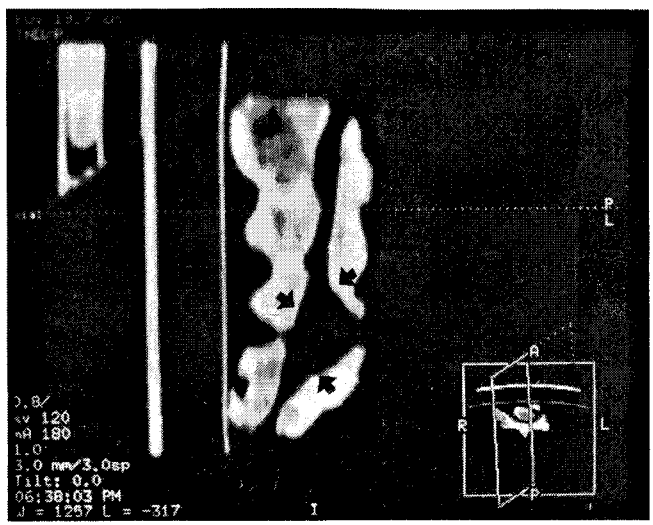

Fig.9. Sacral bone CT scan – widened sacral canal.

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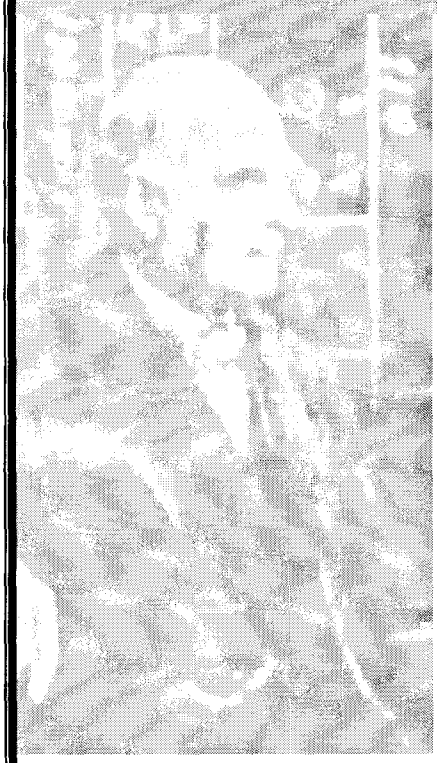
GALTON



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Religion and Fertility

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The authors examine the role that religion occupies in affecting demographic transition. Three main effects are suggested: (i) some religious dynamics enhance successful reproduction and hence community viability across generations, (ii) some religious dynamics diminish community viability across generations, and (iii) some religious dynamics are neutral in the community's viability across generations.

Key Words: Cultural evolution, religion, gender egalitarianism, gender complementarity.

A sea-change occurred during the middle of the 20th century in the character of cultural evolution. To wit: inexpensive, effective reproductive technology, totally within the control of the woman, became available to a majority of women on the planet. Hence, natural increase (births minus deaths) can now be heavily influenced by the reproductive choices of women, which are arguably influenced by the value system relating to the role of the woman within the community in which she dwells. This article examines, (i) the character or the sea-change in cultural evolution, and (ii) the potential role that religion, to the extent that it is a crucible of the community's value system, would play in determining the community's demographic viability across generations.

A Sea-Change in Cultural Evolution

For any intact community or social group to persist across generations, that community or social group must have a continuous supply of citizens, a continuous supply of people. "People" are a *sine qua non* that a community must procreate to maintain continuity across generations. There are only two routes for "peopling" a society: (1) home-grown births which occur within the referent community and (2) immigration (incorporating some other groups' births). This article focuses upon *in situ* births. The role of immigration is beyond the scope

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of this present inquiry.

Indices of Fertility

Demographers have given us four simple indices with which to analyze population changes: (i) birth rates, (ii) death rates, (iii) rates of natural increase, and (iv) total fertility rate (TFR). For any given year and for any given society, if the death rate (the number of deaths per 1,000 population) is subtracted from the birth rate (the number of births per 1,000 population), the result is the rate of natural increase for that society for that year. If the resultant number is positive, the population is growing. If the resultant number is negative, the population is shrinking. If the resultant number is zero, the population's size does not change. The total fertility rate (TFR) is the total number of births a woman may expect to have in her lifetime.

Under the rubric of the notion that occasionally a reminder will trump inspiration, it is useful to note that it is a mother who gives birth to a child. No child exists without being birthed by a woman. A woman can exist without bearing a child, but no child can exist without being borne by a woman. In the middle of the 20th century, the technology that presented to women the option to efficiently regulate their own fertility became fairly widespread, if not practically universal. Thus, a woman, if she foregoes chastity, could decide to be a mother or not. A mother could decide to have one child or more than one child. The technology that would help allow her to exercise that option became widely available and relatively inexpensive. The value systems or moral codes that allowed, if not encouraged, the utilization of that technology also emerged in various areas of world, but were concentrated initially in highly industrialized nations such as Japan or those in Western Europe and its extensions (e.g., Canada, Australia, the U.S.). Thus, in mid-20th century, efficient and affordable technology became (theoretically) available to everyone; i.e., a constant. The moral or value systems that would embrace or reject such technologies became a variable.

Different communities could embrace these changes to a greater or lesser degree. The argument here is that the more embracing that occurs, the lower the rate of natural increase and the lower the TFR; and the less embracing that occurs, the higher the rate of natural increase and the higher the TFR.

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Presented below is a generalized theory from J. K. Brown that would help crystalize why some cultural values would be sculpted more toward embracing new reproductive technology and why some cultural values would be less so.

A Theory from J. K. Brown

In 1970, J. K. Brown wrote a short, simple, and elegant note in the *American Anthropologist*: "A note on the division of labor." In essence, the note reflected Brown's analysis of the division of labor by gender across the world's community of societies. In her abstract, she wrote: "Women are most likely to make a substantial contribution when subsistence activities have the following characteristics: the participant is not obliged to be far from home; the tasks are relatively monotonous and do not require rapt concentration; and the work is not dangerous, can be performed in spite of interruptions, and is easily resumed once interrupted" (pp. 1073-1074). See Murdock (1937) and Murdock & Provost (1973) for examples of gender-specific tasks that support Brown's thesis.

Fertility and Cultural Values

The other side of this conceptual coin would be that if roles beyond that of motherhood are opened to women, women could adopt those roles and, virtually by definition, the status-role complex of motherhood would be attenuated or restricted. Birth rates and, by extension, rates of natural increase would be exposed to downward pressures. It is suggested here that Brown's thesis is as applicable in the 21st century as it was in the early 1970s.

As mentioned earlier, while the technology to prevent conceptions and births is theoretically available to all societies, any cultural expectation or philosophy to actually use those technologies is an entirely separate matter. Framed a little differently, the ethos or value system of a community could evolve such that mating and reproductive histories per individual are totally within the purview of the individual. Because females are the limiting resource in any population changes, it would be the individual females – one at a time – who would opt to utilize or to not utilize reproductive technologies. At the other end of the spectrum, the ethos or value system of a community could evolve such that plural motherhood – being a *multigravida* or *polypara* – were mandated

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by the supernatural, either deities or ancestors. The woman's cultural rules then become a mirror to the dictates of more powerful beings – i.e., more supernatural beings. The failure of any woman to exercise her fertility with plural births could be interpreted as reflecting her flaunting of the supernatural and would threaten wrack and ruin to any society that harbors such females.

Between the polarities of rampant individualism and oppressive collectivism would lie a huge range of gradients and compromises. (See Harris [1979] and Ross & Harris [1987] for examples and discussion; cf. Aghajanian [1979, 1988], Day & Mackey [1981], Zelizer [1985]. See Rosenblatt et al. [1973] for examples of intense cultural pressures and actions to avoid sterility. See Betzig [1989] for cross-cultural examples of reactions to [female] infertility). Because reproductive behavior is important to the longevity of a community across generations, the reproductive behavior occurs within a cultural context. Part of the cultural context is presented below.

Cultural Context to Reproductive Behaviors: A Global Perspective

When a cash economy – with industrialization, manufacturing, bureaucracy – is introduced into a community, a concatenation of events tends to occur. Subsistence farming is reduced. Cash is exchanged for labor. People migrate to where the jobs are; i.e., urbanization increases. Increased education levels are needed to supply the skills to run the offices and factories. These jobs or occupations tend to take place away from the home environs. Because many of these links do occur away from the hearth, it would be argued – from Brown (1970) – that, to the extent a community's women are involved in a process that would separate them from the home environs, there would be a downward pressure on the number of those women's life-time births. This argument is testable.

Testing Brown's Thesis in the 21st Century

Four independent variables have been suggested to affect birth rates: (i) cash economy (as indexed by the per capita gross domestic product), (ii) the percentage of females (rather than males) enrolled in educational institutions of tertiary education (education above the "high school level" and normally associated with a student's preparation for a technical career), (iii) the percentage of females in the legislative body of the

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community (or if no legislative body, then the executive council of the community), and (iv) the percentage of the labor force engaged in agriculture.[2] The unit or community will be called a "nation". Given the use of the very vague concept of "nation", which lends itself to false negatives, if any significant ($p < .05$) results were to occur, then the "noise" in the system did not overwhelm the "signal" in the system, and, thus, the signal is probably of some potency. Note that all nations had indices for all the variables. Accordingly, the "n's" vary.

Results

Cash economy, percentage of females (rather than males) in tertiary institutions, percents of females in the national parliament, and percentage of the labor force in agriculture were all related to the percent of natural increase. See Figure 1.

Across nations, the relationship between rates of natural increase (birth rates minus death rates) and the percentage of women in institutions of tertiary education is significant and negative ($r_p = -.514$, $p < .001$; $n = 168$ nations) (UNESCO 1994; Sivard 1996, Central Intelligence Agency 2001).[3] A rather robust 26.4% (adj. $R^2 = -.514^2 = .264 = 26.4\%$) of the differences in rates of natural increase can be attributed to changes in the proportions of women in tertiary educational institutions.[4] That

[2] In terms of Davis & Blake's (1956) seminal listing of eleven variables that directly affect fertility levels, the three variables of (i) contraception, (ii) voluntary infecundity (i.e., sterilization) and (iii) abortion would be most relevant to this discussion. What this discussion argues is that the opportunity for women to enhance their range of options within a cash economy indirectly affects fertility levels, primarily via the direct effects of contraception, sterilization and abortion. The effect is invariably one of a downward pressure on the number of lifetime births per woman.

[3] Of course, anyone familiar with the field would not be surprised at the outcome. Discussion about the "demographic transition" is a mainstay in courses in the social sciences. The relationship between female fertility and education levels has been a cottage industry for decades with the same results and conclusions being reached. (See Hirschman [1994], Hirschman, Tan, Chamratrithirong, & Guest [1994], Mason [1997], Robinson & Harbison [1995], Van De Kaa [1996], inter alia). Accordingly, this statistic is not presented as being new or innovative. What is being added are the consequences of such a statistic, not merely for the individuals involved at that time, but for the impact such patterns have upon cultural evolution. Such a putative impact has not been as extensively analyzed.

[4] Ecological inference A problem this type of analysis faces is that of the relationship between aggregate data and individual data. Framed differently, aggregate data are not equipped to isolate behaviors of an individual. Thus, inferences from an aggregate, an ecological unit, are generally inappropriate when directed at any individual (see Robinson [1950] for an early discussion of the problem, and see Borgatta & Jackson [1980], Goodman [1959], Hanushek, Jackson & Kain [1974], King [1997], Langbein & Lichtman [1978], Pedhazur [1982] for

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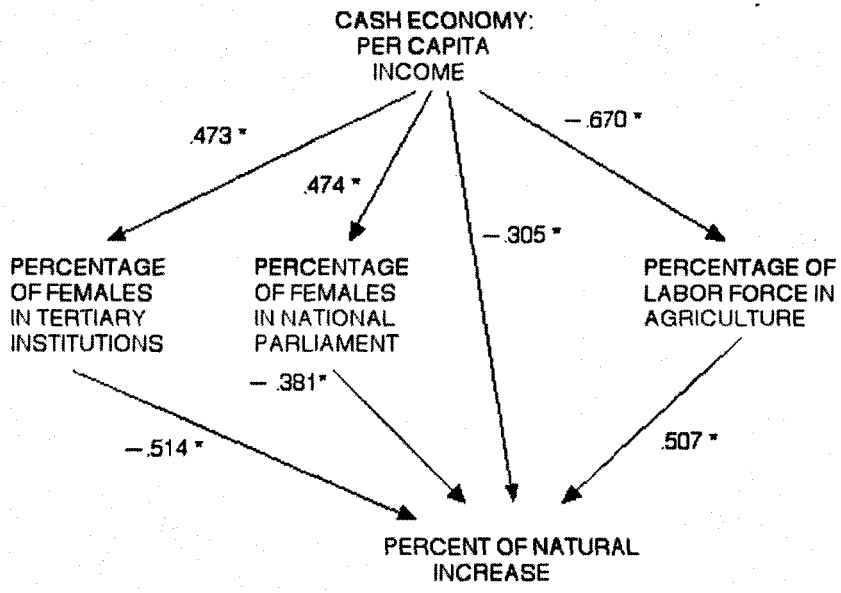

* $p < .001$; (n's range from 155 to 168)

$R = .644$; $p < .001$; $n = 151$

adj. $R^2 = .399$ or 39.9%

Figure 1. Demographic parameters of natural increase

subsequent discussions plus partial solutions to the problem of relating aggregate data to individual behavior). Suffice it to say that the analysis should not be construed to specify how any one individual would or would not behave. The analysis presented here is content to attempt to discover what – if any – behavior patterns are associated with other behavior patterns.

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is, as the women of a nation increase their proportion in tertiary education, the fecundity of the nation decreases.[5]

Natural increase is also (negatively) related to the percentage of national parliaments that are female (r_p = —.381; $p < .001$; n = 165). When both of these variables of females performing outside the home act in tandem, the result is also significant (R = .610; $p < .001$; n = 160).

When the impact upon natural increase by (i) the percentage of females in tertiary educational institutions, (ii) the percentage of females in their national parliaments, (iii) the percentage of the labor force engaged in agriculture, and (iv) GDP per capita income are examined as an aggregate of four independent variables, the result is also significant (R = .644; $p < .001$; n = 151). These four (independent) variables account for over a third (adj. R^2 = .399 = 39.9%) of the variance in the level of natural increase. See Figure 1. Again, when women are able to (i) have a career and (ii) participate in political power structures, and (iii) move from subsistence agriculture to a job for salaries/wages, birth rates and rates of natural increase plummet.

As Figures 2 – 4 indicate, the pattern outlined above is replicated with the Total Fertility Rate (TFR) as the dependent variable, thereby replacing Percent of Natural Increase, and with the Percentage of Females in Secondary Educational Institutions

[5] Correlation coefficients (such as rp), of course, cannot demonstrate causality. And there are three basic interpretations available to the significant correlations presented here: (1) changes in rates of natural increase are driving women's educational achievements, or (2) changes in educational levels are driving rates of natural increase, or (3) a third variable is driving both of the other two variables: natural increase and educational levels. The likelihood of each of the three is examined below.

The first option – changes in natural increase are driving educational achievements – seems, at face value, implausible. Functional sterility would not be a reasonable explanation why women would increase their pursuit of higher levels of education. The second – changes in education levels are driving rates of natural increase – has a ring of common sense to it. However, students generally achieve a terminal degree in tertiary institutions by their low or middle twenties. Nearly two decades of fecundity are still available to such women.

Accordingly, a third variable – occupational and income mobility – is suggested to be the operant variable. Higher education is certainty a conduit to enhanced occupation and income mobility. Indeed, other surveys have documented that when women do have an opportunity to enter into a cash occupation, they do just that. Thus, it is suggested that the drive-wheel for the inverse relationship between rates of natural increase and the levels of women to be involved in the educational process is the expectations by the women for a higher income via a skilled profession.

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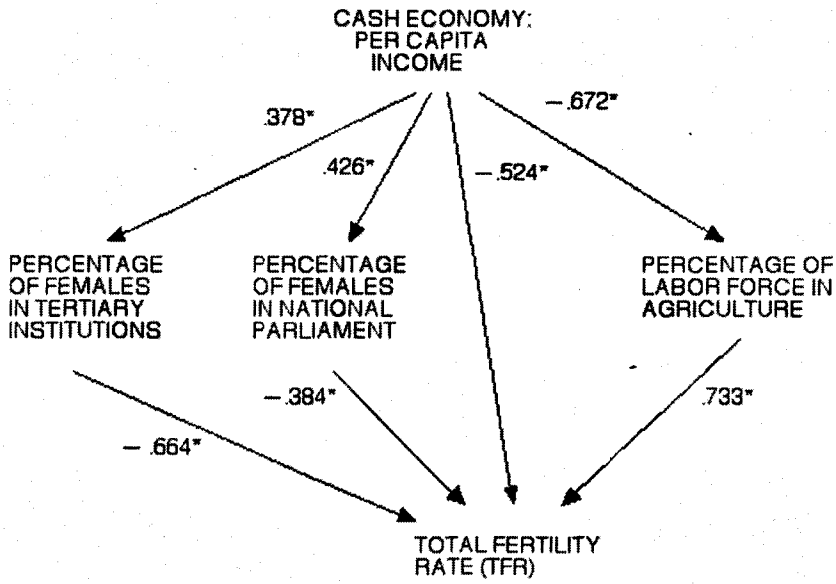

*p < .001; (n's range from 144 to 170)

R = .782; p < .001; n = 160

adj. R^2 = .602 = 60.2%

Figure 2. Demographic parameters of Total Fertility Rate (TFR).

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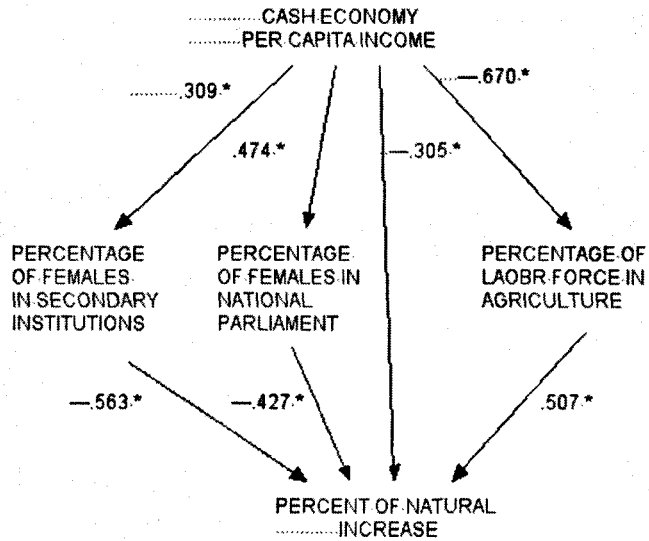

*p < .001; (n's range from 155 to 171)

R = .650; p < .001; n = 142

Adj. R^2 = .405 = 40.5%

Figure 3: Demographic parameters of natural increase using percentage of females, rather than males, in secondary institutions rather than in tertiary institutions).

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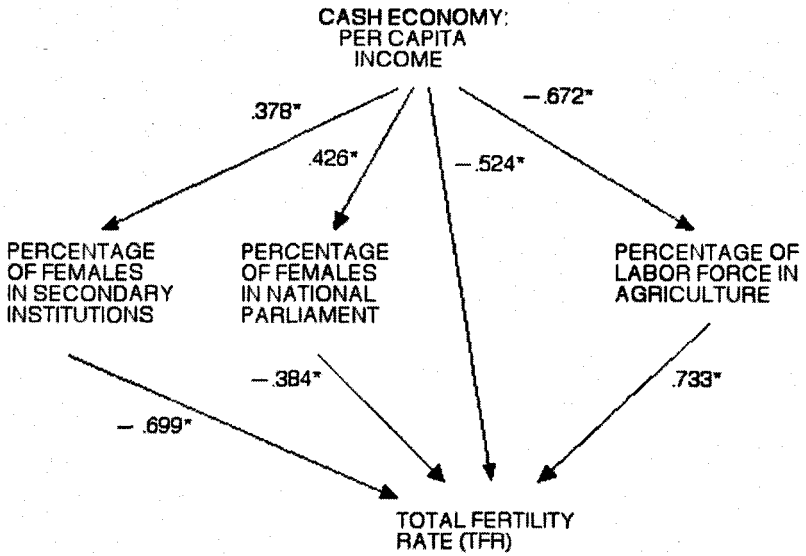

* $p < .001$; (n's range from 144 to 170)

$R = .804$; $p < .001$; $n = 142$

adj. $R^2 = .637 = 63.7\%$

Figure 4. Demographic parameters of Total Fertility Rate (TFR) (using percentage of females, rather than males, in secondary institutions).

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which replacing Percentage of Females in Tertiary Institutions.

Synopsis

Gender Egalitarianism versus Gender Complementarity

When women are given the opportunity to engage in activities outside the home (e.g., wage/salary occupations and political governance), the women do seize those opportunities. That is, if a person can achieve a desired position independent of gender, the community has taken on a bias toward gender egalitarianism. On the other hand, if gender roles are mandated by the community and the female is wedged into the mother-role and males perform the tasks not associated with the mother-role, then the community has become biased toward gender complementarity. It is clear that across the planet, peasant or subsistence farming is associated with reduced gender egalitarianism and elevated gender complementarity. Accordingly, in those farming communities in which children are a form of cheap labor and are walking-breathing-social-security-insurance for their parents, birth rates are high. To maintain the high birth rates, gender complementarity is strongly enforced by traditional values and sanctions. The next question is whether religion, acting independently of the economic value of ones own children, can bias birth rates.

Religions and Reproductive Trajectories

Religion as a Crucible for Value Systems

Within the context of quasi-universal access to effective contraceptive technology, it is suggested that value systems that more restrict women to the mother-role and preclude her from outside-the-hearth employment for a cash remuneration would have higher birth rates than alternative value systems that more remove restrictions upon women. Religion, as a crucible for such a putative value system, would illustrate how any community may accept or reject such contraceptive technologies.

Framed a little differently, if roles beyond that of motherhood are allowed by the traditional value systems of the community to be opened to women and if the women adopt those roles, then virtually by definition the status-role complex of motherhood is attenuated or restricted. Birth rates and, by extension, rates of natural increase are be exposed to downward pressures. It is suggested here that Brown's thesis may be as

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applicable in the 21st century was it was in the early 1970s. A plausible marker for the applicability of Brown's thesis is the religious cosmology of the community. Within this context, two religious sub-samples will be addressed. One is from the United States and the second is more catholic in scope.

Selection of Communities within the United States

Given that moral/value systems are inherent in religious groups, different religious denominations were surveyed – across generations – to see if rates of natural increase differed. Those religious groups were selected that were not known for a heavy emphasis on recruiting converts within the U.S.; and, thus, changes in church membership were probably more dependent upon rates of natural increase than upon converts. Episcopalians, Lutherans, Presbyterians, Unitarian-Universalists,[6] Jews, and the Reorganized Church of the Latter Day Saints (currently The Community of Christ) were selected as religious denominations that more reflect the ascendancy of the individual – irrespective of gender. In each of these denominations, women are allowed to be clergy on par with men. See Appendix I for rationales for such selections.

The Mennonites and Southern Baptists were included as two denominations that seem to be in a state of flux. This flux will be examined in a later section.

The Old Order Amish, the Hutterite Brethren, and the Latter Day Saints (the Mormons) were selected as examples of denominations that are more focused on the group, and less influenced by the thrust of enhancing individualized self-fulfillment and that more emphasize gender complementarity rather than gender egalitarianism; i.e., men are in charge of political and economic institutions and only males are in the power-hierarchy of the denomination.[7] The Shakers are also noted and their inclusion will be discussed in a later section. See Table 1.

[6] The Unitarians and the Universalists merged in 1961.

[7] The Hasidic Jewish population in America represents an interesting and relevant community. Systematic evidence reports that there is strong gender complementarity within their community; i.e., men are in charge of economic and political institutions as well as of the religious hierarchy. Anecdotal evidence suggests that the Hasidic community has a very high birth rate. Because the birth rates cannot be quantified, the Hasidim cannot be included in this article. However, the Hasidim seem to be a good candidate to be included with the Hutterites, the Amish, and the Mormons.

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TABLE 1

Growth of selected religious groups from the 1920s to the 1960s and from the 1960s to the 1990s

(Yearbook of American and Canadian Churches, 1925-2001).

GROUP	YEAR:						
	Mid 20s (000)	*Mid 40's (000)*	*Mid 60s (000)*	*Mid 80's (000)*	*Mid 90's (000)*	*60s/20s*	*90s/60s*
Episcopalians	1,164.9	2,155.5	3,410.7	2,775.4	2,317.8	**292.8%**	**68.0%**
Reorg LDS	89.5	116.9	168.4	192.4	137.1	**188.2%**	**81.4%**
Judaism[8]	4,081.2	4,641.0	5,600.0	5,817.0	6,061.0	**137.2%**	**108.2%**
Presbyterians	1,828.9	1,986.3	3,279.2	3,122.2	3,561.2	**179.3%**	**108.6%**
Mennonites	36.6	51.8	77.3	110.3	92.0	**211.2%**	**119.0%**
Lutherans	2,546.1	4,731.9	6,507.2	7,932.8	8,270.8	**255.6%**	**127.1%**
Unitarian-Universalists	117.7	112.3	164.5	169.2	216.9	**139.8%**	**131.9%**
Southern Baptists	3,611.6	5,367.1	10,393.0	14,178.1	15,851.8	**287.8%**	**152.5%**
Latter Day Saints	535.7	911.3	1,789.2	3,601.0	5,113.4	**334.0%**	**285.8%**
Old Order Amish	7.6	13.4	20.4	34.0	80.8	**268.4%**	**396.1%**
Hutterites	0.7[9]	0.3	7.6	4.0[10]	42.8	**1085.7%**	**563.2%**
Shakers	0.3	—	—	—	—	—	—
					Mean	**307.3%**	**194.7%**
					(sd)	**266.1%**	**156.4%**

[8] Importantly, these numbers do not include the ultra-orthodox Hasidim.
[9] These 700 are reported to have moved to Canada.
[10] An additional 27,200 are reported to have lived in Canada.

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Results

Changes from the 1920s to the 1960s

All of the groups – even in the context of relatively high rates of infant mortality – increased their populations substantially. The lowest increase was for the (non-orthodox) Jews, but, even then, their population grew by more than a third. See Table 1.

Changes from the 1960s to the 1990s

However, from the 1960s to the 1990s, two separate trajectories become clear. One trajectory illustrates near stasis. The Episcopalians, the Unitarians-Universalists, the Presbyterians, the Jews, the Reorganized Church of the Latter Day Saints, and the Lutherans all illustrate relatively minor fluctuations in population growth. Of these six, the Lutherans had the greatest increase with just over a 25% gain. Two groups, the Episcopalians and the Reorganized Church of Latter Days Saints experienced a drop in their number.

The Old Order Amish, the Hutterite Brethren, and the Latter Day Saints more than doubled their populations.

The Mennonites and Southern Baptists represent interesting dynamics and appear to be in transition. The Mennonites were previously quite fundamentalist. However, the surveyed groups did institute female clergy in 1973 and appear to be becoming more liberal. The Southern Baptist Convention admitted female clergy beginning in 1964, but reverted back to male-only clergy in 2000. Thus, the Southern Baptists may be becoming increasingly conservative. These transitional denominations will be interesting to track over the next several generations.

Shakers versus the Hutterites

At this point, there will be a minor digression. The clearest difference between any two groups/tribes/sub-cultures/religions seems to be between the Hutterites and the Shakers. In the mid-1920s, there were approximately 300 Shakers and approximately 700 Hutterites in the U.S. Neither group had as many as 1,000 members. The Shakers had a philosophy that included chastity, which by definition would preclude children. Thus, any Shaker growth would be due to recruitment from other groups that did not practice celibacy or chastity. By the 1960s, the Shaker culture was gone. The Shakers had become an historical footnote. By the mid-1960s, the

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Hutterites – traveling back and forth between the northern Midwest and Canada – had approximately 7,600 members in the U.S. By the mid-1990s, there were 41,600 Hutterites in the U.S., an increase of over 500% since the mid-1960s. In 1880, there were 443 Hutterites in Canada. By 1972, there were 21,521 Hutterites there, for an increase of 486%.[11] How much the census data are influenced by the Canadian-U.S. shuttle is unknown, but under any circumstance and by any measure, the growth of the Hutterite Brethren is impressive. In terms of cultural evolution, high fertility would seem to have an enormous advantage – across generations – when compared to sterility. As self-evident as this notion seems to be, its dynamics invariably fail to be acknowledged in discourses within the behavioral sciences.

Caveat

It should be emphasized and re-emphasized that the numbers in Table 1 are not amenable to a microscopic one-to-one analysis or correspondence per denomination. The lack of amenability stems from a number of sources. First, the figures are not census numbers surveyed by the Department of Commerce. In general, officials of the various religions were simply asked: "How many people are in your denomination?" Some officials seem to have specific figures for the relevant year at their fingertips. Some officials were more "in the (large) ballpark" for a recent, but not current year. Some denominations ignore the question, and their numbers are simply unknown. Fissions and fusions, especially in the Protestant churches, may have over-counted or under-counted some denominations across the decades. Our theological leaders may possess great skills in faith and shepherding, but demographic precision is not an arrow in their quivers. Nonetheless, without drawing too fine a point, the data in Table

[11] The Doukhobors are also an interesting and informative community. They came to Canada from Russia as a result of their persecution by the Czars for refusing to serve in the Russian army. The Doukhobors settled in western Canada in a rural farming community. Accordingly, the Doukhobors could be conceptualized as an amalgam of the rural/farming Hutterites (who have a high rate of natural increase) and of the pacifist Quakers (who also tend to avoid military service). The numbers of Doukhobors have consistently dwindled since their arrival in the 19th century. The reasons for the Hutterite demographic success and the Doukhobor demographic failure (not unlike that of the Quakers) needs to be explored further.

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1 probably represent a valid, but not fine-grained, filter.

Synopsis

For American religious communities, those denominations that stress gender complementarity and thereby constrict women's roles toward motherhood will – across generations – replace or displace those denominations that stress gender egalitarianism and minimize any division of labor by gender.

Conversely, in the U.S., those communities – religious denominations – that allow gender egalitarianism, and thereby encourage women's opportunities beyond the mother-role, will – across generations – be supplanted by denominations that stress gender complementarity and maximize division of labor by gender.

Selection of Samples around the Globe (N = 11)

Eleven samples were surveyed. These are the Moslem swathe (Circum-Mediterranean [Islam], n = 25 countries beginning with Mauritania and running eastward to Pakistan); Indonesia (Islam); Korea (Christianity and Buddhism), Thailand (Buddhism); China (Taoism and Buddhism); Japan (Shinto and Buddhism), India (Hinduism); Singapore (Buddhist); Haiti (an amalgam of voodoo and Christianity); Europe (Christian; n = 36 countries which are nominally Christian); and Sub-Saharan Africa (a variety of Christian, Islamic and animist religions, n = 32 countries). The eleven samples were selected for religious, geographic, ethnic, and ecological diversity.

Five of the eleven samples had their total fertility rate above replacement value (Sub-Saharan Africa, Haiti, the Moslem swathe, India, and Indonesia). Four of these five had the percentage of their labor force engaged in agriculture above the world's mean (36.0%): Sub-Saharan Africa, Haiti, India, and Indonesia. The fifth sample – the Moslem swathe – did not.

Six of the samples, had their total fertility rate at or below replacement levels (Thailand, China, Korea (South), Japan, Europe and Singapore). Four of the areas had the percentage of their labor force engaged in agriculture below the world's mean (36.0%). China and Thailand were above the world's mean of 36%.

See Table 2.

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TABLE 2.

Eleven surveyed areas by total fertility rate (TFR) and by percentage of the labor force which is engaged in agriculture.

The TFRs which are above replacement value (2.1) are in bold type.

The percentages of labor force in agriculture which are above the world's average of 36% are also in bold type.

Area	Total fertility rate (TFR)	Percentage of labor force engaged in agriculture
Sub-saharan Africa (n = 32)	**5.3**	**68**
Haiti	**4.4**	**66**
Moslem Swathe (n = 25)	**4.2**	**36**
India	**3.0**	**67**
Indonesia	**2.6**	**44**
Thailand	**2.1**	**54**
China	1.8	**53**
Korea	1.7	11
Europe (n = 36)	1.5	13
Japan	1.4	7
Singapore	1.2	2

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TABLE 3.

Highest (top 10) and lowest (bottom 10) fertility rates (mean number of children per woman) by country and geographical area (Central Intelligence Agency 2000).

Highest Ranked:				**Lowest Ranked:**			
Rank	Area	Country	Number of children	Rank	Area	Country	Number of children
1	Africa	Somalia	7.18	1	Europe	Latvia	1.13
2	Africa	Niger	7.16		Europe	Bulgaria	1.13
3	Africa	Ethiopia	7.07	3	Europe	Spain	1.15
4	Asia	Yemen	7.05	4	Asia	Singap.	1.16
5	Africa	Uganda	6.96	5	Europe	Czech Rep.	1.18
6	Africa	Dem. R. Congo	6.92		Europe	Italy	1.18
7	Africa	Mali	6.89	7	Europe	Estonia	1.19
8	Africa	Western Sahara	6.64	8	Europe	Belarus	1.25
9	Africa	Chad	6.63		Eurasia	Russia	1.25
10	Asia	Gaza Strip	6.55		Europe	Hungary	1.25
		Mean =	6.91			Mean =	1.19
		sd =	.23			sd =	.05

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Note that the ten nations with the world's highest TFR are found in Sub-Saharan Africa or in the Moslem swathe. All ten nations are at least three times the level for replacement value. Accordingly, these ten nations are poised to increase their internal populations as well as their proportion of the planet's population. They are also poised to send any excess populations to areas of lower fertility. See Table 3. Nine of the ten nations with the lowest TFR are in Europe. The tenth, Singapore, is in Asia. All ten are well below replacement value. Accordingly, these ten nations are poised to decrease their internal populations as well as decrease their proportion of the planet's population. As depopulation occurs, the lands become susceptible to repopulation by immigrants. See Table 3.

Relationship between Religion and Fertility within the Sample

Neither Christianity (at least as practiced in Europe and Korea) nor Buddhism (at least as practiced in Thailand, China, Korea, Japan, and Singapore) is aligned with a level of fertility which is at replacement value or higher. In addition, four of these six communities have a proportionately small farming population, i.e. less than half of that of the world mean (36% of the labor force engaged in agriculture) China has half of its labor force engaged in agriculture (well above the world mean of 36.0%), but the government policy of one child per family (with reports of forced abortions) is presumably depressing (reported) fertility. The high percentage of women in China's national parliament is consonant with the lowered TFR. Thailand's data are unexpected. Its birth rate is low; but, unexpectedly, so are its percentage of female tertiary students, and the percentage of women in national parliaments. Thailand also has a high percentage of its labor force engaged in agriculture. One potential explanation for the apparent anomaly is the high level of literacy of the Thai population. Over 91.6% of the females over the age of 15 in Thailand are literate (96.0% of the males), but a further study of Thailand is obviously called for.

The above-replacement level of fertility found (i) in Haiti with its amalgam of Christianity and Voodoo, (ii) in Hindu India and (iii) in Islamic Indonesia can be predicted by the high percentage of the labor forced engaged in agriculture (66.0%, 60.0%, and 45.0% respectively).

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The Moslem swathe's high TFR of 4.23 is unexpected because of the low(er) percentage of the labor force engaged in agriculture. However, the low percentage of females in tertiary education and the low percentage of females in national parliaments is consonant with a high TFR. See Table 2.

Discussion

The conceptual problem is not why birth rates go down with an advent of enhanced health care, the disappearance of subsistence agriculture, and the increased occupational options for women. Others have addressed this issue. The problem is why birth rates would stay up after predictive barometers and incentives of high yield fertility have been removed. A partial answer possibly involves the character of Islamic religious theology.

It is suggested here that if a religion had pre-positioned itself prior to the 1950s (by conscious tactics or by mere happenstance), such that gender complementarity had been engrained in the religious socialization of its young adherents, then subsequent gender egalitarianism would be relatively difficult to establish within that community. The supplanting of gender complementarity with gender egalitarianism seems to be increasingly difficult if a monotheistic deity is interpreted as directing that (a) women are especially destined for (only) motherhood, (b) children are a blessing bestowed by the deity, (c) men are given charge of political and economic institutions, and (d) the deity can be offended and will punish offenders. The theology of the Amish, Hutterites, Mormons, and Moslems alike fulfill these criteria.

Currently, women who are either Amish, Hutterite, Mormon or from the Moslem swathe would be transgressing their religious tenets if they, the women, deliberately failed to attempt to conceive children.

Sin. The Mormons are quite explicit about this dynamic. To wit: The Mormon *Gospel Principles* (1978, pp. 228-229), under the sub-heading "the responsibility of the father," teaches:

> "The father is the patriarch of the family and has important responsibilities that are his alone. He is the head of his home and the leader of his family... It is also the father's duty to earn the living for his family. He should provide the necessary food, housing, clothing, and education."

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For the "responsibility of the mother," it is noted that "motherhood is woman's noblest calling... A mother's most important responsibility is to bring children into the world and to care for and teach them. Bearing children is one of the greatest of all blessings. To refuse to do so is a serious sin."

An important facet of the worldview found within the Moslem swathe is the strongly held view of gender complementarity, rather than gender egalitarianism or gender equality. As a consequence of this initial premise, male and female roles become, in the main, quite separate. For example, the countries of the Moslem swathe are generally considered highly patriarchal, with women precluded from positions of economic or political power and from a wide spectrum of occupations. Women are clearly culturally assigned the mother role. For example, Inhorn writes that "In a society (Egypt) where the patriarchal fertility mandate is emphatic, the social and psychological consequences of 'missing motherhood' – of being a woman unable to deliver a child for her husband, family, affines, community, faith, nation, and not inconsequentially her – are nothing if not profound." Authors, including feminist ideologues, who have written ethnographic accounts of the relevant Moslem countries invariably refer to the strongly patriarchal character of the political and economic structures. The question is never "*Is* the country patriarchal?" The ethnographic accounts revolve around how the patriarchy developed and how it is maintained. For example, Ahmed (1992) writes: "The subordination of women in the ancient Middle East appears to have become institutionalized with the rise of urban societies and with the rise of the archaic state in particular..." and, as Islam crystalized its theology, "Implicit in this new order was the male right to control women and to interdict their interactions with other men. Thus the ground was prepared for the closures that would follow." See Kadioglu (1994) for a parallel argument for women's role in Turkey. Toubia (1988, pp. 2-3) makes the case quite clearly: "Arab women are dominated by men in every area of life in the patriarchal family system: state, political party, trade union and public and private institutions of all types." She noted that over 97% (97.2%) of the Yemeni women, as late as 1975, were illiterate. Badran (1995, p. 5) notes that "the woman was perceived as essentially or exclusively, a sexual being, unlike the

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man who was only partly understood in terms of his sexuality". Gerami (1996, p. 157) views the current version of Islamic fundamentalism as "...nipping a very young feminist movement in the bud and under the banner of nature's mandate, pushed women further into the family. They managed to cast woman's individualistic identity as a perversion of her nature plotted by Western imperialists". Obermeyer (1995, p. 370) observes that the "Islamic emphasis on complementarity rather than equality in gender roles" makes dialogue with a worldview predicated on equality rather than complementarity extremely difficult. (For reviews of the literature, see Al-Qazzaz [1977], Ansari [1973], Hekmat [1997], Kamali [1984], Meghdessian [1980], Mernisse [1991], Raccagni [1978], and Tucker [1993]). For theoretical overviews, see Lerner (1986) and Walby (1990).

Female Clergy as a Marker for Gender Egalitarianism

A marker for the evolutionary trajectory of a (religious) community across generations seems to be whether or not the community will tolerate female clergy. If females are allowed to be in the clergy on an equal footing with men, the future of that religious community – again, across generations – seems problematic. For example, in America, women were allowed to be ordained in the Presbyterian church (1956), reform Judaism (1972), the Episcopal church (1976), the Reorganized Church of Jesus Christ of Latter Day Saints or The Community of Christ (1984), the Mennonite church (1973), the American Unitarian Association (1871), and the Lutheran church (1970) (Chaves 1997). In Korea, women have been ordained in the Christian clergy since 1995. These denominations are associated with low(er) fertility levels.

As a matter of contrast, in the Islam, Amish, Hutterite, and Mormon denominations, clergy is reserved for men. These denominations are associated with high(er) fertility levels).

Conclusion

It is suggested here that religions of the 21st and 22nd centuries will have one of three main trajectories. (1) Religions can encourage gender egalitarianism and encourage occupational mobility for women (and men). Such religions will be associated with fertility levels well below replacement level and will enjoy only limited longevity. (2) Religions can be indifferent to gender roles and, thereby, other parameters; e.g.,

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ecological circumstances, such as subsistence farming, would determine levels of fertility of the community's members. Or (3) religions can encourage gender complementarity wherein women are confined primarily to the mother role with minimal opportunities outside of that role. *Ceteris paribus*, such religions will be associated with fertility levels above replacement level and enjoy extended longevity across generations. Without commenting upon desirability, there is a strong intuition that cultural formulae that result in levels of fertility above replacement value will supplant or displace cultural formulae that result in levels of fertility below replacement value. The supplanting would be a constant. The only variable would be time.

References

Aghajanian, A.
1979 Economic contribution of children and fertility in rural Iran: An overview. *Journal of South Asian and Middle Eastern Studies* 3: 21-30.

Aghajanian, A.
1988 The value of children in rural and urban Iran: A pilot study. *Journal of Comparative Family Studies* 19: 85-98.

Ahmed, L.
1992 *Women and gender in Islam: Historical roots of a modern debate.* New Haven: Yale University Press.

Al-Qazzaz, A.
1977 *Women in the Middle East and North Africa: An annotated bibliography.* Austin, Texas: Center for Middle Eastern Studies .

Ansari, M. F.
1973 *The Qur'anic foundations and structure of Muslim society.* Karachi: Indus Educational Foundation.

Badran, M.
1995 *Feminists, Islam, and nation: Gender and the making of modern Egypt.* Princeton, New Jersey: Princeton University, Press.

Barry, J. & Paxson, L.
1971 Infancy and early childhood. *Ethnology* 16: 191-230.

Belcove-Shalin, J. S. (ed.)
1995 *New world Hasidim.* Albany, NY: State University of New York Press.

Betzig, L.
1989 Causes of conjugal dissolution: A cross-cultural study. *Current Anthropology* 30: 654-676.

Bianci, S. M. & Spain, D.
1986 *American women in transition.* NY: Russell Sage.

Bishop, P. & Michael, Darton (eds.)
1987 T*he Encyclopedia of world faiths* NY: Facts on File.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Borgatta, E. E. & Jackson, D. J. (eds.)
1980 *Aggregate data: Analysis and interpretation.* Beverly Hills, CA: Sage.
Brown, J. K.
1970 A note on the division of labor. *American Anthropologist* 72: 1073-1078.
Bush, P.
1998 *Two kingdoms, two loyalties: Mennonite pacifism in modern America* Baltimore: Johns Hopkins University Press.
Carneiro, R. L.
1973 Classical evolutionism. In *Main currents in cultural anthropology.* R. Naroll & F. Naroll (eds.) pp. 57-122. NY: Appleton-Century-Crofts.
Chalfant, H. P., Beckley, R. E. & Palmer
1994 *Religion in contemporary society.* Itasca, Illinois: F. E. Peacock Pub., Inc.
Chaves, M.
1997 *Ordaining women.* Cambridge, Mass.: Harvard University Press.
Childe, V. C.
1951 *Social evolution.* NY: Henry Schuman.
Coleman, D. A.
1994 Trends in fertility and intermarriage among immigrant populations in Western Europe as measures of integration *Journal of Biosocial Science* 26: 107-136.
Coney, N. S. & Mackey, W. C.
2000 Cultural evolution and gender roles: A re-affirmation of J. K. Brown's note. *International Journal of Comparative Sociology* 41 (3): 285-299.
Davis, Kingsley and Judith Blake
1956 Social Structure and Fertility: An Analytic Framework *Economic and Cultural Change* 4: 211-235.
Day, R. D. & Mackey, W. C.
1986 Children as resources: A cultural analysis. *Family Perspective* 20: 251-264.
Dershowitz, A. M.
1997 *The vanishing American Jew: In search of Jewish identity for the next century.* NY: Little, Brown & Co.
Driedger, L.
1988 *Mennonite Identity in conflict.* Lewiston: Edwin Mellen Press.
Ekvall, R. B.
1968 *Fields on the hoof.* NY: Holt, Rinehart, & Winston.
El-Or, T.
1994 *Educated and ignorant: Ultraorthodox Jewish women and their world.* London: Lynne Rienner Publishers.
Eliade, M. & Couliana, I. P.
1991 *The Eliade Guide to World religions.* San Francisco: Harpers.
Fischer, D. H.
1996 *The great wave: Price revolutions and the rhythm of history.* NY: Oxford University Press.
Fog, A.
1999 *Cultural Selection.* Boston: Kluwer Academic Publishers.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Frazer, J. G.
1958 *The Golden Bough.* NY: Macmillan.
Gallup, G., Jr. & Castelli, J.
1989 *The peoples' religion: American faith in the 90's.* NY: MacMillan.
Gerami S.
1996 *Women and fundamentalism: Islam and Christianity.* NY: Garland.
Goldberg, S.
1973 *The inevitability of patriarchy.* NY: Wm Morrow.
Goodman, L.
1959 Some alternatives to ecological correlation. *American Journal of Sociology* 64: 610-625.
Gospel Principles
1981 *Gospel Principles.* Salt Lake City, Utah: The Church of Jesus Christ of Latter-Day Saints.
Hanushek, E. A., Jackson, J. E. & Kain, J. F.
1974 Model specification, use of aggregate data, and the ecological correlation fallacy. *Political Methodology* 1: 87-106.
Hardin, G.
1968 The tragedy of the Commons. *Science* 162: 1243-1248.
Harris, M.
1979 *Cultural Materialism.* NY: Random House.
Harris, M.
1999 *Theories of culture in postmodern times.* NY: Altamira.
Hekmat, A.
1997 *Women and the Koran: The status of women in Islam.* NY: Prometheus Books.
Hirschman, C.
1994 Why Fertility Changes. *Annual Review of Sociology.* 20: 203-233.
Hirschman, C. Tan, J., Chamrathrthirong, A. & Guest, P.
1994 The path to below replacement level fertility in Thailand. *International Family Planning Perspectives* 20: 82-87.
Hofer, S.
1998 *The Hutterites* Saskotoon, Canada: Hofer Publishers
Hostetler, J. A.
1974 *Hutterite Society* Baltimore: Johns Hopkins University Press.
Hostetler, J. A.
1980 *Amish Society* (3rd ed.) Baltimore, MD.: Johns Hopkins University Press.
Hostetler, J. A.
1983 *Hutterite Life.* Scottsdale, PA: Herald Press.
Immerman, R. S. & Mackey, W. C.
In press Cultural viability and gender egalitarianism: An elusive balance yet to be struck. *Journal of Comparative Family Studies.*
Immerman, R. S. & Mackey, W. C.
2002 The upper limits of civilization: Why improvement of the commonweal is so difficult. *The Journal of Social, Political, and Economic Studies* 27: 363 – 379.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Immerman, R. S. & Mackey, W. C.
1998 Cultural evolution and gender asymmetry in tertiary education: The Tragedy of the Commons revisited (with Ronald S. Immerman, M.D.) *International Review of Modern Sociology* 28: 93 – 111.
Inhorn, M. C.
1996 *Infertility and patriarchy: The cultural politics of gender and family life in Egypt.* Philadelphia: University Pennsylvania Press.
Jacobson, C. K (ed.)
1995 *American families: Issues in race and ethnicity.* NY: Garland Pub. Inc.
Jung, C. G.
1969 *Man and his symbols.* NY: Doubleday.
Kadioglu, A.
1994 Women's subordination in Turkey: Is Islam really the villain? *Middle East Journal* 48: 640-662.
Kamali, M. H.
1984 Divorce and women's rights: some Muslim interpretations of S2:228. *Muslim World* 74: 85-99.
King, G.
1997 *A solution to the ecological inference problem: Reconstructing individual behavior from aggregate data.* Princeton, NJ: Princeton University Press.
Kosmin, B. A. & Lachman, S. P.
1993 *One nation under God: religion in contemporary American Society.* NY: Harmony Books.
Kraybill, D. B. (ed.)
1993 *The Amish and the State.* Baltimore: Johns Hopkins Press.
Kraybill, D. B.
1994 Introduction: The struggle to be separate. In *The Amish struggle with modernity.*(eds). D. B. Kraybill & M.A. Olshan. London: University of New England.
Kraybill, D. B. & Bowman, C. F.
2001 *On the backroad to heaven* London: The Johns Hopkins University Press.
Kraybill, D. B. & Olshan, M. A. (eds.)
1994 *The Amish struggle with modernity.* London: University of New England
Landau, D.
1993 *Piety and Power: The world of Jewish fundamentalism.* NY: Hill & Wang.
Langbein, L. I. & Lichtman, A. J.
1978 *Ecological inference.* Beverly Hills, CA: Sage. Lerner, G. 1986. *The creation of patriarchy.* NY Oxford University Press.
Lowie,R.
1920 *Primitive Society* NY: Boni & Liveright.
Maine, H. S.
1873 [orig. 1861]. *Ancient Law: Its connection with the early history of society and its relations to modern ideas.* NY: Holt.
Margolis, M.
1984 *Mothers and Such.* NY: Basic Books.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Martin, P. & Widgren, J.
1996 International migration. *Population Bulletin* 51: 6-17.
Marx, K.
1904 [orig. 1859]. *The critique of political economy* I. N. Stone, trans. Chicago: International Library Publication Co.
Mason, K. O.
1997 Explaining fertility transitions. *Demography* 34: 443-454
McLuhan, M.
1964 *Understanding media and the extension of man.* NY: McGraw-Hill.
McLuhan, M.
1967 *The medium is the massage.* NY: Random House.
McLuhan, M.
1989 *The global village: Transformations in world life and media in the 21st century.* NY: Oxford U. Press.
Mead, F. S.
1995 *Handbook of denominations in the United States.* Nashville, TN: Abingdon Press.
Meghdessian, S. R.
1980 *The status of the Arab woman: A select bibliography.* Westport, Conn.: Greenwood Press.
Melton, J. G.
1993 *Encyclopedia of American religions.* London: Gale Research, Inc. Mernisse, F. 1991. *The veil and the male elite: A feminist interpretation of women's rights in Islam.* NY: Addison-Wesley.
Morgan, L. H.
1963 [orig. 1877]) *Ancient Society.* E. Leacock, ed. NY: Meridian Bks.
Morris, L.
1997 Globalization, migration and the national state: The path to a post-national Europe? *British Journal of Sociology* 48: 192-209.
Murdock, G. P.
1937 Comparative data on the division of labor by sex. *Social Forces* 15: 552.
Murdock, G. P. & Provost, C.
1973 Factors in the division of labor by sex: A cross-cultural analysis. *Ethnology* 12: 203-225.
Nonaka, K., Miura, T. & Peter, K.
1994 Recent fertility decline in Dariuslout Hutterites *Human Biology* 66: 411-420.
Norbeck, E.
1976 *Changing Japan* NY: Holt, Rinehart, & Winston.
Obermeyer, C. M.
1994 A cross-cultural perspective on reproductive rights. *Human Rights Quarterly* 17: 366-381.
Olshan, M. A. & Schmidt, K. D.
1994 Amish women and the feminist conundrum. In T*he Amish Struggle with modernity.* (ed.) D. B. Kraybill & M. A. Olshan. London: University Press of New England., pp. 215-225.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Pedhazur, E. J.
1982 *Multiple regression in behavioral research* (2nd. ed.). NY: Holt, Rinehart & Winston.
Peter, K. A.
1987 *The dynamics of Hutterite society.* Alberta: University of Alberta Press
Rabinowicz, H. M.
1970 *The world of hasidism.* Hartford, Conn.: Hartmore House.
Raccagni, M.
1978 *The modern Arab woman.* London: Scarecrow Press.
Robinson, W. S.
1950 Ecological correlations and the behavior of individuals. *American Sociological Review* 15: 351-357.
Robinson, W. C. & Harbison, S. F.
1995 The fertility decline in Kenya. *Journal of International Development* 7: 81-92.
Rohner, R. P.
1975 *They love me, they love me not.* New Haven, CT: HRAF Press.
Rosenblatt, P. C. et al.
1973 A cross-cultural study of responses to childlessness. *Behavior Science Notes* 3: 221-231.
Ross, F. H.
1983 *Shinto: The way of Japan* Westport, Conn.: Greenwood Press.
Ross, E. B. & Harris, M.
1987 *Death, sex, and fertility: Population regulation in preindustrial and developing societies.* NY: Columbia University Press.
Sivard, R.
1995 *Women... A world survey.* Washington, D. C.: World Priorities. Statistisches Bundesamt
1992 *Wirtschaft und statistik.* Stuttgart: Metzler-Poeschel,
Steward, J.
1955 *Theory of culture change.* Urbana, Ill.: University of Illinois Press.
Toubia, H.
1988 *Women of the Arab world.* London: Zed Bks.
Tucker, J. E. (ed.)
1993 *Arab women.* Bloomington, IN: Indiana University Press,.
Tylor, E. B.
1958 [orig. 1871]. *Primitive Culture.* NY: Harper Torchbooks.
Umble, D. Z.
1994 Amish on the line: The telephone debates. In *The Amish struggle with modernity.* (eds.) Kraybill, & M. A. Olshan. London: University Press of New England, pp. 97-112.
Umble, D. Z.
1996 *Holding the line.* Baltimore: Johns Hopkins University Press.
UNESCO
1994 *Statistical Yearbook* NY: United Nations.
United Nations
2001 *The World's women 2000: Trends and Statistics* New York: United Nations.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Van De Kaa, D
1996 Anchored Narratives: The story and findings of half a century of research into the determinants of fertility. *Population Studies* 50: 389-432.
Van den Berghe, P. L. & Peter, K.
1988 *Hutterites and Kibbutzniks: A tale of nepotistic communism.* Man, n.s. 23: 522-539.
Walby S.
1990 *Theorizing patriarchy.* Cambridge, Massachusetts: Basil Blackwell.
Wasao, S. W. & Donnermeyer, J. F.
1996 Analysis of factors related to parity among the Amish in Northeast Ohio. *Population* 50: 235-246.
Weisner, T. S. & Gallimore, R.
1977 My brother's keeper: Child and sibling caretaking. *Current Anthropology*18: 169-190.
White, J. B.
1997 Turks in the New Germany. *American Anthropologist* 99: 754-769.
White, L.
1959 *The evolution of culture* NY: McGraw-Hill.
Who's Who
1997 *Who's Who.* Chicago: Marquis Who's Who.
Yearbook of American and Canadian Churches
1926-2001
Nashville, TN: Abingdon Press, 1926 – 2002.
Zelizer, V. A.
1985 *Pricing the priceless child: The changing social value of children.* NY: Basic Bks.

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ELECTRONIC REPRODUCTION PROHIBITED

APPENDIX I

CHARACTERISTICS OF RELIGIOUS DENOMINATION IN REFERENCE TO GENDER COMPLEMENTARITY VIS-A-VIS GENDER EGALITARIANISM.

Old Order Amish

The Old Order Amish are communal, with low levels of religious exogamy (Driedger 1988). The power structure of the community is patriarchal. The average number of children per mother is approximately seven (Hostetler 1980; Kraybill 1994; Umble 1994, 1996). Children are typically viewed as an economic asset in agrarian societies and in Amish eyes they are seen as a blessing from the Lord (Hostetler 1980; Kraybill 1994, Kraybill & Bowman 2001). Given the low infant mortality of the Amish in the U.S., this figure of seven is far higher than the U.S. average of about two children per woman. See below for an example of the growth of the Amish population. The typical Amish woman "spends her days in domestic pursuits, surrounded by children.... One of the Amish woman's essential tasks is to teach sewing, gardening, cooking, canning, and housekeeping to the next generation of wives and mothers." (Olshan & Schmidt 1994). The Amish tend to stop formal education for their children relatively early; e.g., an eighth grade education seems to suffice (Kraybill 1993; Kraybill & Olshan 1994; Nonaka, Miura & Peter 1994; Wasao & Donnermeyer 1996).

AMISH POPULATION GROWTH, NORTH AMERICA (1900 – 1992) (KRAYBILL 1994)

YEAR	ESTIMATED POPULATION	PERCENT GROWTH FROM PREVIOUS DECADE
1900	4,800	–
1910	6,550	136.5%
1920	12,450	190.1%
1930	16,500	132.5%
1940	23,100	140.0%
1950	30,300	131.2%
1960	40,350	133.2%
1970	55,050	136.4%
1980	85,350	155.0%
1990	134,700	157.8%

Episcopalians

The Episcopalians tend to be a more liberal denomination within mainstream Protestantism, especially on gender egalitarianism. The proportion of stay-at-home mothers is relatively low (Chalfant, Beckley, & Palmer 1994; Kosmin & Lachman 1993). Rules to allow full clergy rights to women passed in 1976. Mixed marriages, by religion, are relatively high at 27% (Gallup & Castelli 1989).

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Hutterite Brethren

The Hutterite communities have a four-level male authority structure. Kinship is patrilineal and patrilocal. Thus, within this kinship structure Hutterite males maintain a lifelong association within the same community or its branch (Hofer 1998, Hostetler, 1983; Peter 1987; Van den Berghe & Peter 1988). Gender complementarity and communal well-being are stressed. Marriage outside the "faith" (religious exogamy) is virtually the null set. The mean number of children per woman was 10.1 in the 1950s but decreased to 6.3 in 1985 (Nonaka, Miura & Peter, 1994).

Judaism

Judaism is diverse. The bulk of current Judaism in the 1990s stress gender egalitarianism. Women tend to be highly educated and the proportion of stay-at-home mothers is relatively low (Kosmin & Lachman, 1993). Mixed marriages are high 22% – 40% (Gallup & Castelli, 1989, Jacobson, 1995). For these Jews, birth rates are very low. On the other hand, the ultra-orthodox Jews, e.g. the Hasidim, practice a strong gender separation, and a strong gender complementarity (Belcove-Shalin, 1995; El-Or, 1995, Landau, 1993, Rabinowicz, 1970). These Jews more resemble urban Hutterites than any other denomination. Accordingly, one would expect a very high birth rate, a very high level of natural increase. Anecdotally, such expectations seem to reflect demographic reality. However, the Hasidim appear to be intractably indifferent to surveys. Any and all collections of census numbers of the Hasidim invariably state: "Not reported" (Melton, 1993). The National Jewish Population Survey of 1990 was elaborate and sophisticated, but not very complete. The limited data do indicate that "secular" Jews – at the time— averaged 1.6 children per family with an intermarriage rate of 72%. The Hasidic/Yeshiva orthodox Jews – at that time – averaged 6.4 children per family with an intermarriage rate of 3% (from Dershowitz, 1997). Clearly, as long as these differentials continue, the Hasidim, compared to the "secular" will represent an ever larger percentage of American Judaism.

Latter Day Saints

The political power structure of the Latter Day Saints is all male. In the Mormon Gospel Principles (1978, pp. 228-229), under the subheading "the responsibility of the father", the following is taught: "The father is the patriarch of the family and has important responsibilities that are his alone. He is the head of his home and the leader of his family....It is also the father's duty to earn the living for his family. He should provide the necessary food, housing, clothing, and education."

For the "responsibility of the mother", it is noted that "motherhood is woman's noblest calling. ... A mother's most important

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responsibility is to bring children into the world and to care for and teach them. Bearing children is one of the greatest of all blessings. To refuse to do so is a serious sin." Mormons have a very low rate of mixed marriages, 7% (Gallup & Castelli 1989). The proportion of stay-at-home mothers is relatively high (Kosmin & Lachman 1993).

Lutherans

As is the case with the Episcopalian Church, the Lutherans are from the more liberal side of mainstream Protestantism; e.g., gender egalitarianism is stressed (Chalfant, Beckley & Palmer, 1994; Kosmin & Lachman, 1993). Rules to allow full clergy rights to women passed in 1970. Mixed marriages are fairly high at 21% and the proportion of stay-at-home mothers is relatively low (Gallup & Castelli 1989; Kosmin & Lachman 1993).

Mennonites

Although they tilt toward the fundamentalist end of the spectrum, the Mennonites are not a homogeneous denomination (Chalfant, Beckley & Palmer 1994). The level of conservatism is along a gradient: the more urbanized, the less conservative; the more rural and communal, the more conservative (Driedger 1988; Bush 1998). In the U.S., the eastern and mid-western Mennonites tend to be more rural/conservative; while the west coast Mennonites tend to be more urban and less conservative.

Reorganized Church of Jesus Christ of Latter-Day Saints
(The Community of Christ)

This body of the Mormon groups is most open to mainline Protestantism (Melton 1993). The ordination of women was approved in 1984, and now more than 3,500 women have been ordained to ecclesiastical orders (Mead 1995)

Unitarian-Universalist Association

Part of the their ideology includes the encouragement of sympathy and cooperation among religious liberals at home and abroad. Their beliefs: The inherent worth and dignity of every person, a free and responsible search for truth and meaning, the right of conscience and the use of the democratic process within their congregations and in society at large, the goal of world community with peace, liberty and justice for all, the rise of feminist consciousness, and the respect for the interdependent web of all existence of which we are a part (Mead 1995). The Universalist Church of America first ordained women as clergy with full rights in 1863 (Chaves 1997).

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Future Human Evolution

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Washington D.C.

The article argues that humanity's current reliance on an economy based on resource depletion will necessarily be disastrous for future generations primarily because the main resource being depleted is the availability of human genomes capable of providing the level of intelligence, altruistic behavior, emotional balance and general physical health required to maintain the advanced and dangerously unstable economic and technological systems on which *homo sapiens* currently largely depend. The author seeks to demonstrate that biological variety among *homo sapiens* is highly extended and that current policies and attitudes are rapidly creating a disadvantaged lower caste of humans possessing levels of intelligence, altruistic instinct, emotional balance and general physical health too meager to compete and participate in world society with the emerging leading group of humans: a group which only supports its own existence by constantly recruiting the lower caste's most talented into it's more fortunate ranks. The papers draws attention to the injustice of this situation and also to the looming crisis that will result from the way in which this system rewards the most talented for failing to reproduce even in sufficient numbers to replace themselves while at the same time stripping the highly fertile, less materially fortunate gene pools of their highest capability genomes. The paper argues that only by embracing altruistic eugenic programs and turning from resource depletion strategies will mankind escape the cruelty of Darwinian natural forces which will otherwise unthinkingly rectify sustainable balance when our complex and fragile economies and societies collapse due to these demographic trends.

Key Words: Positive eugenics, negative eugenics, genetic engineering, natural selection, intelligence, altruism, health, Sir Francis Galton.

No matter how much we humans pride ourselves on our achievements, we really are no closer to resolving the great questions of being than when we were still 'cave dwellers'. Time extending endlessly backward and/or forward is as unimaginable as is time possessing a beginning and/or an end. But psychologically we need a map – a concept of being and our place in the universe – and thus we engage in elaborate

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mythmaking to fill the vacuum which we find so intolerable. To be durable a worldview must a) explain the universe to us, and b) assuage our fears and satisfy our longings. Logic is not a prerequisite. Myth can even contradict itself, not to mention be at variance with the real world.

Regardless of when or where we live, we inevitably perceive ourselves as the Middle Kingdom, and we either smile condescendingly at the mythmaking of other cultures or we go to war with them to force them to accept our – uniquely correct – worldview. And if we are better at crafting weapons, we are generally able to persuade those whom we have physically conquered of the superiority of our myths over theirs.

From the time of its adoption of Christianity until the mid-nineteenth century the Western world accepted a literal interpretation of the Book of Genesis, but then the discovery of evolution presented a radically differing explanation of man's origins. We now find ourselves attempting to reconcile religion with science, and we have created a new mythology which, not surprisingly, is ripe with self-contradiction.

a. Intellectuals (even if not the man in the street) are firmly convinced that we are the product of evolution, but they are equally entrenched in the odd assumption that human beings are the one species no longer affected by that process.

b. While other species of animal and plant can undergo significant change over a few generations, we maintain that thousands of generations of the most radically varying conditions of selection and selective mating have left us as genetically immutable as the cockroach, so perfect and universal are our blueprints.

c. Even as society pays a premium for ability and gumption in virtually any form of activity, it has become fashionable to claim that such factors play no role in the formation of social classes, which are held to be entirely a function of chance and privilege. Indeed, the scholars who dominate the publishing marketplace and academia deny that intelligence even exists in human populations.

d. We have developed a huge academic testing industry, but its findings are widely declared to be not simply approximate, but lacking in any validity whatsoever.

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e. With the transition to small families, we have observed generation after generation how the intellectually endowed are failing to replace themselves –exactly as was feared by earlier eugenicists – but we accept such a phenomenon as natural and even pay the genetically disadvantaged to increase their fertility while rewarding the genetically advantaged to engage in activities more stimulating than mere child rearing.

f. We are more and more successfully implementing a process for the elimination of natural selection – it is called "medicine" – and are firmly convinced that future generations will remain unaffected.

g. Hard at work deciphering the map of the human genome, we continue to apply moral criteria to those phenomena which we will soon be able to explain scientifically.

h. While our society, like those of all other animal species, is necessarily centered around the mating ritual, the human implementation of that particular process is governed by a myriad of camouflaging taboos and fetishes. The gap between reality and fantasy could not be more crass.

i. We have created a genetic caste society which co-opts talent born into the lower castes, efficiently exploiting and manipulating these castes, while at the same time proclaiming equality of opportunity as our slogan.

j. We refuse to recognize that we are a species that perfectly fits the definition of a disease, freeing itself (very temporarily) from the constraints of natural selection and the limitations of natural resources only to wreak havoc on ourselves and our fellow species in a massive assault on the host which we parasitize – the planet.

k. We have created an unsustainable economy dependent on resource exhaustion, and we proclaim still greater levels of consumption as the goal of society.

l. We proclaim freedom of speech while at the same time ruthlessly excoriating any opinion in the area of human genetics which is found offensive by any significant segment of society.

Thus, the revolution in technology has been accompanied, not by the elimination of myth, but by its modification into a denial of biology. The give and take of any political processes is

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necessarily determined by the relative power of the participants, so that future generations – the overwhelming mass of humanity – are not taken into consideration during decision making. But even among the currently living, power is vested in a genetic elite that has created a system of bread and circuses to manage the broad masses so as to subordinate them to its will.

During the last third of the twentieth century, even while scientists were generally permitted to teach the theory of evolution, that freedom did not extend to raising the topic of humanity's future evolution and methods of guiding that process. It is curious that the suppression of the topic coincided with a revolution in our understanding of genetics. This censorship has now been lifted, and there is total agreement even among the most implacable foes of the eugenics movement that the taboo on eugenics can no longer stand.

Despite popular mass opinion and prejudice, the facts of science are inescapable. In the time you take to read this sentence, humankind will have evolved genetically. There are species such as the coelacanth which – incredibly – has survived over some 400 million years, but they are the rare exception. *Homo Sapiens* is a very recent link in the evolutionary chain, and over the past century the conditions governing selection in that population have undergone revolutionary changes. It is necessary that we recognize the reality of genetic selection, not just historically, but in the breeding of human populations today.

Ultimately, we have to decide how pleased we are with ourselves as a species. This is a great watershed dividing those who favor genetic interventionism and those who oppose it. Regardless of our personal attitudes, however, there is no denying the fact that while the genetic lottery has indeed produced many winners, there are also many others who have been less fortunate. We the living are but links in a chain, and it is our parental obligation to take into account the needs of our future children, no matter how many generations separate them from us. While it is certainly true that we should not be presumptuous in our ability to predict the future, we must nevertheless take into account certain basic needs that are desirable for all societies at all times: we want healthy, intelligent babies who will grow up to be emotionally balanced, broadly altruistic adults.

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Nineteenth-century scientists noted that intelligent people were having fewer children than those who were intellectually less well endowed. The gloomy prognoses of these early eugenicists have withstood the test of time. Now, when the majority of people live far beyond their child-bearing years, it is not those who have survived a horrendous process of natural selection who will populate the planet in the future, but those who have the most babies. That is, we now have selection by fertility rather than by mortality – a revolutionary change. Whereas girls in countries with developed welfare programs can choose to escape school by becoming pregnant if they find themselves unable to cope with an academic program, an early 2001 study showed that fully a third of American women earning more than $55,000 a year are childless at age 40 and are likely to live out their lives without ever giving birth.[2]

As for physical health, we have made such advances in medicine that natural selection has been reduced to almost zero; already 98% of Americans survive at least to their 25th birthday.[3] These successes are gratifying, but what are the potential genetic consequences of this achievement? We who would have died without modern medicine and who now survive are thus free to pass on our deficient genes to countless generations of victims. There is even a lobby advocating the "right" to do so. Bioethicist Adrienne Asch writes:

> My moral opposition to prenatal testing and selective abortion flows from the conviction that life with disability is worthwhile and the belief that a just society must appreciate and nurture the lives of all people, whatever the endowments they receive in the natural lottery.[4]

Much the same position is held by the Canadian ethicist Tom Koch, who believes that all diseases are part of the diversity of the human race.[5] Evidently the logic here is that all is for the best in this best of all possible worlds.

Gregor Wolbring, another Canadian who is active in the movement of handicapped persons against eugenics was born without legs and has a daughter who suffers from Down's

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[2] Hewlett, 2002.
[3] Trafford, 2002, F8.
[4] "Disability Rights Advocates."
[5] Smith, 2002.

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syndrome, goes even further:

> I can say, without hesitation, that my life has been richer because I have MS. How can anyone who has no experience with disabilities understand that?[6]

Mr. Wolbring runs a website with materials both supporting and attacking the eugenics movement[7], noting that he himself is opposed to eugenics. On his site he indicated the Future Generations website[8], which supports eugenics, marking it with a skull and crossbones. When I protested that people of good will could not maintain a dialogue on that basis, he agreed and removed the symbol, although, of course, he was not about to change his views. My heart goes out to Mr. Wolbring for his courage and I admire the dedication he shows to the cause he champions, even though his views are diametrically opposed to my own.

With each generation the burden of genetic defects grows. And the more treatments medical scientists produce, the greater that "load." If no corrective measures are taken, with time the percentage of future people in need of serious medical treatment for genetically determined conditions promises to increase on an open-ended basis.

We can not only counter that trend, but reverse it by using modern medicine to create a new, kinder selection. It is our destiny either to seize our Promethean future and take our chances or to descend into inexorable genetic decline. But to do so we must first recognize the nature of the choice that confronts us.

Humankind has now entered into the first stages of a revolution in the general understanding of genetic mechanisms, the mapping of the human genome, new biotechnologies, and the scientific explanation of many aspects of human health and behavior that were previously viewed exclusively through a moral prism. The genie of enlightenment cannot be squeezed back into the bottle of ignorance. We need to act on the basis of both the knowledge we already possess and the ever-increasing knowledge we will have at our disposal in the very near future. We must use it for the benefit of future generations, not just for

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[6] Henderson, 1999.
[7] http://www.bioethicsanddisability.org/eugenics.html
[8] http://www.eugenics.net

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our own self-gratification. We can truly become all that we want to be.

On a theoretical plane at least we are now – finally – in agreement that equality of opportunity is a desirable goal. But disregarding all common sense, we find ourselves in the grips of a social ethos that insists that not only should people enjoy equal rights, but that they are all virtually identical, differing only in upbringing. Everyone knows this assertion to be wrong headed, but it is a polite fiction in which we all engage. It is a hard thing to say that Jack is more gifted than Jim, that Mary really should not pass on her genetic illness to the next generation, that crime may have a genetic component, that economic class and intelligence are correlated, that our species has much in it that is highly undesirable. Thus we now exist in an intellectual fantasy world that accepts genetic causality for all species except one – our own.

Many of our everyday decisions are fraught with genetic consequences. Who is having the babies, and how many? And what can we do to guide future human evolution in a positive direction? No one is calling for the institution of a draconian dictatorial state, but we need to recognize that anything that influences fertility is a factor in the new selection. These can include a stroll to the nearest pharmacy to purchase birth control pills or condoms, a visit to an abortion clinic, or a decision to reduce or even renounce childbearing so as to be able to advance career and education. In denying free day care and financial child support to all but the welfare population, government provides incentives to some groups to bear children and disincentives to others, and this policy has already become a momentous factor in genetic selection. For our children's sake we need to take such facts into account in structuring our society and writing our laws.

None of the yet unborn generations, the truly silent majority, has any voice in this debate. Thus we, the tiny group of the currently living, find ourselves confronted with a conflict of interests: we must weigh our own selfish desires against the welfare and very existence of the great sea of humanity that will follow us. This is a question not just of science, but of morality.

Our former totems must be overthrown. It is time for everyone to realize that the king is naked. We need to accept our place within the physical world – as biological creatures. In

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order to survive as a species and to really have any greater philosophical significance than the other animals, we have no choice other than to agree to subordinate our interests to those of future generations in the area of reproduction and begin to manage our populations according to principles which are uncontested with regard to all other species. In short, we need to replace natural selection with scientific selection. In the words of Sir Francis Galton, the "father" of eugenics and statistics,

> What nature does blindly, slowly and ruthlessly, man may do providently, quickly, and kindly. As it lies within his power, so it becomes his duty to work in that direction.[9]

Western society makes much of its freedom of speech and democratic choice, but the choices are all too often focussed around trivial questions intended to serve as a distraction from the real issues. The arguement concerns the very meaning of life, intelligence and our place in the universe and is based on a rational philosophy of life and love for our children, of a consciousness of the burdens and responsibilities of parenthood. It is proffered in a spirit of collegial friendship to concerned men and women of good will, including those who currently view themselves as opponents of the eugenics movement. Hopefully, at least some of them will realize that the proponents of eugenics share the same values, hopes, and fears as do they, that evolution has not stopped for humankind, and that scientists and scholars must rip aside their moral and intellectual blinders so as to permit thinking society to gather for a public discussion. If nothing else, we should be able to agree on the right to disagree.

Fraught with history, values, and emotions, eugenics is based on science, but is not limited to science, and I will here attempt to tie together a number of fields in a syncretic approach. I ask the reader's understanding in presenting areas which might seem disparate, but any serious, wide-ranging worldview is necessarily eclectic. Keep in mind that eugenics, which was once a powerful force in society, encompasses a wide range of views. This article gives one man's view, and other proponents of

[9] Francis Galton, "Eugenics, Its Definition, Scope, and Aims," Sociological Papers, 1905, I, 45-50, 45; quoted in Weingart, Kroll, and Bayertz, 1988, 33.

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eugenics will not always be in agreement with all aspects of it.

The current revolution in genetics and the prospect of holding in one's hands in a few years the complete human blueprint is truly awe-inspiring, and we must assume that future discoveries in the field of genetics will give us capabilities which we can barely imagine now. Disagreements on what is attributable to nature and what to nurture will seem quaint, and we will have to ask ourselves as a species what to do next, how to achieve, if not utopia, at least something closer to it than we now have, or at the very least how to survive.

As thoughtful observers have long known, society will soon have to come to grips with the true choice confronting humankind – either continue the current *laissez-faire* posture in human selection or guide it. Anti-interventionists rightly point out that we can easily produce an irreparable disaster, breaking off the precious baton handed on from generation to generation. So no decision is also a decision. The alternative is a rapid slide into species decline.

The *natural* selection which produced the people inhabiting the world today was an incredibly cruel process. If we refuse to replace that mechanism with scientifically based artificial selection, we will fritter away what was won at so terrible a price, and nature will avenge our ancestors by reasserting itself on our children in the most ruthless fashion. No biological species can survive without selection.

What Does This Mean?

Once the continuity of humankind with the rest of the animal kingdom was established, invigorated attempts to improve the human genome became inevitable. After all, eugenics is, quite simply, applied human genetics. Five of the first six presidents of the American Society of Human Genetics were also members of the board of directors of the Eugenics Society. Historically, modern genetics is an offshoot of the eugenics movement, not the reverse.

Positive eugenics

Refers to approaches intended to raise fertility among the genetically advantaged, including *in vitro* fertilization, egg transplants, and cloning. Pronatalist countries (that is, those which wish to stimulate their birth rates) already engage in moderate forms of positive eugenics. Israel, for example, by the

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mid-1990s had four times the number of fertility clinics per capita as did the United States, subsidizing artificial insemination, ovum donation, and *in vitro* fertilization. In 1996 the Embryo-Carrying Agreements Law made Israel the first country in the world to legalize surrogate mother agreements. Applicants for insemination tend to be college graduates above average in intelligence, and sperm donors (often medical students) fill out extensive health histories, although genetic screening is still limited by cost considerations.[10]

Negative eugenics

Which is aimed at lowering fertility among the genetically disadvantaged, is largely encompassed under the rubric of family planning and genetic counseling, including free abortions and sterilization. To ensure that such services are available to all on a nondiscriminatory basis, it is important that, at a minimum, persons with low income receive such services on a gratis basis.

Genetic engineering

Which was unknown to early eugenicists, consists of active intervention in the germ line, without necessarily encouraging or discouraging reproduction of advantaged or disadvantaged individuals.

Previous Evolution

The question of where to draw the line between closely related species and subspecies can be resolved differently by different observers. In the case of modern human populations, where all too many scientists pursue conflicting social-political agendas, such demarcation lines are hotly contested.

The binomial nomenclature established in the eighteenth century by the Swedish botanist Karl von Linné (Carolus Linnaeus) for mapping the relationships among all living things (at least on our planet) lumps the totality of modern human populations together as *Homo sapiens.* All humans alive today, be they bushmen, Australian aborigines, Japanese, Eskimos, or Caucasoids, are thus declared to belong to a single species, and any discussion of subspecies is regarded with suspicion and hostility. Issued in response to a statement by the rightist French politician Jean-Marie Le Pen on racial inequality, a 1997

[10] Kahn, 2000, 2, 32-33, 38.

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statement signed by a group of prominent biologists denied the very existence of race in human populations. (Actually, the denial of race had actually first been made by the eugenicist Julian Huxley in 1935.) Again, it was an assertion triggered by political events – in this case the promulgation of Hitler's anti-Jewish pronouncements.[11] Accordingly we now have a single "modern man," dubbed *Homo sapiens sapiens*, who comes in different colors. It is certainly true that modern genetic studies have shown remarkable similarity among all humans, but for that matter there is also an estimated commonality of 95-99% of DNA between humans and chimpanzees[12].

Scientists now generally agree that modern human populations have their origins in Africa, but there is considerable disagreement as to whether current intergroup differences are explained by evolution dating back a million years to *Homo erectus* ("multiregionalism"), or whether *Homo sapiens* showed up as a relatively late arrival, roughly something over 100,000 years ago, and then proceeded to either wipe out or mix with the decendants of earlier hominid emigres wherever he came into contact with them ("replacement" theory). The degree to which earlier hominid species interbred remains in the area of speculation, and the multiregionalists have been accused of making a case for fundamental biological differences that amounts to racism.[13] In the words of the scholar Seymour Itzkoff, we are dealing here with a "will to believe [which] is reminiscent of the seduction of intellectuals with abstract ideological models in politics and social thought."[14]

The family trees of the cheetah and the horse provide useful models for comparison. Genetic studies have demonstrated that today's cheetahs display so little diversity that their ancestors must at one time have come through such a narrow bottleneck that only a few individuals were able to perpetuate the species by inbreeding. Horses, by contrast, display tremendous variance, evidently the result of independent taming and breeding in different parts of the world.

Ultimately, genetics is more like a game of chess, where the

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[11] Pichot, 2000, 12-13.
[12] American Association for the Advancement of Science, 2000, 1219; quoting M.-C. King and A. C. Wilson, *Science*, 188, 107, (1975); Stein, 2002.
[13] Balter, 2001.
[14] Itzkoff, 2000, 265.

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development of a position is of strictly historical interest and plays no role in determining the game's outcome, than it is like bridge, where success is determined largely by the player's ability to remember which cards were played earlier. The variability so obvious in human populations, even on an intragroup basis, opens the possibility of intervening in human evolution to guide it and even search for new horizons, regardless of how present variability came about. Where we came from is a fascinating question, but where we are heading is quite another.

Even the replacement school of thought concedes that the larger part of the current human species developed for *at least* some 5,000 generations outside of Africa under radically differing conditions of selection – a sequence fully sufficient to produce very significant differences in the various subpopulations. In addition, still greater diversity would have to be postulated on the basis of the biological diversity that had to already be in evidence at the time the various populations left Africa. In addition the emigres may have interbred with other hominid species that had arrived still earlier. Animal breeders, by comparison, can achieve enormous changes in just a few generations.

Homo sapiens has been around for perhaps 150,000 years, and it would appear that our future existence may be considerably more ephemeral. Humanity is thus a colony with a beginning and is viewed here, not just as all people alive at any given moment, but as a lineage including the totality of future people over the entire lifespan of this community. Our moral obligations are to the future as well as the present. We are not only part of the planet's ecology, we are its custodians. As the mythologist Joseph Campbell put it, we are no less than its consciousness.[15] As for future generations, they are our children. Parenthood, as we all know, inevitably involves sacrifice.

The renowned geneticist James V. Neel studied the society and genetic makeup of the Yanomama of southern Venezuela and northern Brazil and persuasively argued that the structure of their society was a typical one for human populations during the period when people still lived exclusively in bands, that is, for all but the last 10,000 years. These were small, isolated

[15] Campbell.

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populations which practiced polygamy and incest, permitting nature to select among a rich variety of genotypes in widely differing environments. Such conditions were conducive to rapid evolution. Panmixia may still be a long way off, and indeed may never be total, but the ever-increasing outbreeding of human populations is reducing human diversity while at the same time creating large populations that are, perhaps, less prone to positive evolutionary selection.[16]

The Reduced Role of Natural Selection in Advanced Modern Societies

There is no such thing as immutability in biological stocks, for with each new generation, a species inherits new genes in the form of mutations. On rare occasions a mutation can improve the individual's survivability chances, and that new gene then becomes more widespread in the population as a whole. Nevertheless, the vast majority of mutations end up reducing the number of offspring. This is the classic balance of mutation and death which is called "natural selection," and it is accepted by biologists as decisive in all species, *bar none.* Animal husbandry amounts to selecting for traits which frequently end up reducing survivability, and in a way modern human urbanization is counterselectionary.[17]

Since the explicit purpose of medicine is to come as close as possible to eliminating natural selection, the result is that a significant portion of people who would not have been able to survive in the harsh crucible that created all species, can now live to pass on their genes to their children. That is, curative medicine can be counterproductive. Preventative anticipation is the most efficacious approach to public health. Curative care is basically a fallback position; it is what we do when preventative medicine fails. Eugenics is the ideal form of prevention.

While it is obviously neither possible nor acceptable to deny medical care to sick people, we are also morally obliged to protect the interests of still unborn generations. This is extremely difficult in a world where very many people regard children as an ordinary commodity. The so-called "demographic

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[16] Neel, 1983.

[17] The anti-selectionary nature of domestication was pointed by Julius Tandler in 1928 in *Gefahren der Minderwertigkeit,* printed from *Jahrbuch 1928 des Wiener Jugendhilfewerks,* Vienna, 7; quoted in Weingart/Kroll/Bayertz, 1988, 45.

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transition," in which people in advanced societies choose to have fewer children, is even studied by economists and demographers in all manner of curves, graphs, and charts, establishing the cost of one child as the equivalent of X number of automobiles, televisions, or what have you. Children have become an economic liability now, in contrast to the situation of traditional societies, where more children mean more hands to work the farm. Since altruism for most people extends down the family no further than one or two generations, people are reluctant and even angry when asked to alter their conduct in even the slightest degree so as to benefit people of the future. But the moral reality is that very many people should forbear having children. This amounts to a call to deny a fundamental biological imperative – no easy achievement. How to hang the bell on so ferocious a cat?

Virtually all changes in living conditions also alter the conditions of selection, often in unforeseen ways. For example, will populations that have passed through the demographic transition gradually disappear or, now that people are more likely to have children because they want them rather than receive them as a by-product of sexual activity, are we breeding into the population a stronger genetic drive to value children, *per se*?

Or, to take another example, it is clear that homosexuality is at least partially explained by genetic factors.[18] There have even been studies purporting to demonstrate that homosexuals are more intelligent, on the average, than heterosexuals,[19] and efforts have been undertaken to locate genetic markers for homosexuality.[20] To the degree that the gay rights movement is successful in legitimizing the status of its members, fewer homosexuals are forced into a heterosexual life style, reducing the number of their children and thus reducing their frequency of their specific genes in the common pool.

IQ Testing

Since IQ testing was first initiated in the early part of the twentieth century, it has been intensively utilized by the U.S. army to select recruits and determine those areas in which they

[18] Bailey/Pillard, 1991; Associated Press, 1992a.
[19] Weinrich, 1978.
[20] Gladue/Green/Hellman, 1984.

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might best be employed. Proponents of the extreme egalitarian grain have delighted in attacking century-old science and then applying their conclusions wholesale to modern science, and certainly early IQ tests contained questions that elicit embarrassed smiles among today's testers. For example, was the Knight engine used in the Packard, the Lozier, the Stearns, or the Pierce Arrow? Or does Velvet Joe appear in advertisements of tooth powder, dry goods, tobacco, or soap?[21] While such questions might have had some limited validity when addressed to young people who had grown up in America, they were obviously inappropriate for people who had recently immigrated to the United States and who barely spoke English. Such persons obviously performed badly on the test, but it does not automatically follow that modern tests, which have been worked on assiduously by thousands of psychologists, are equally flawed and thus totally invalid.

Hopefully, the massive expansion of education throughout the world in the twentieth century has helped people not only to acquire specific facts, but also to use their minds more efficiently. But the fear is that dysgenic fertility patterns inherent in modern society have created a population with less innate ability than that of its predecessors.

To approach this question we must first make clear the difference between genotype and phenotype. Genotype is genetic potential, and phenotype is realized potential. For example, statistics show a constantly rising mean height in most of the world. The cause is obviously not altered genes, but improved nutrition and, perhaps, meat laced with hormones. But genotypes set limits. If a group of pigmies were to be given excellent food and a group of Masai tribesmen were to be distributed low-quality nourishment, the pigmies would obviously enjoy a height increase and the Masai a decrease, but the pigmies would not become taller than the Masai, and there would be no Lamarckian carry-over to their children.

As the psychologists Edwin Boring quipped in a debate with the columnist Walter Lippman, "IQ is what IQ tests measure," which is not necessarily the same thing as raw intelligence. One must distinguish between a conceptual variable and its

[21] Examination Alpha, Test 8, Forms 8 and 9, quoted by Paul, 1995, pg. 66, from Robert M. Yerkes, ed. Psychological Examining in the United States Army, Vol. 15 of memoirs of the National Academy of Sciences, Washington, D.C., 1921.

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operational definition. IQ is simply one possible measure of phenotype.

Some estimates of genotypic IQ decline are in the range of 1 to 4 points per generation,[22] but the New Zealand political scientist James R. Flynn has produced a seminal study claiming that IQ scores have actually been steadily increasing. Such tests as the Stanford-Binet and the Wechsler regularly measure subjects and establish new mean scores and standard deviations. From 1932 to 1978 testers steadily reset norms, each time raising the bar. When the norms are held constant, the mean IQ has risen 13.8 points, nearly one standard deviation, over the course of 46 years.[23]

This is a potentially very encouraging result in that it indicates that IQ differences may prove to be relatively more malleable than was previously thought and the egalitarian ideal, which lies at the heart of the eugenic cause, may be more easily realizable than thought. On the other hand, we still can only surmise the constraints laid upon phenotype by genotype. What evidently has happened, if Flynn is correct, is a phenotypic improvement overriding genotypic deterioration.

The SAT-I is intended basically to be an aptitude test, as opposed to the SAT II, which measures knowledge in specific subjects. The SAT I in turn consists of two parts, the SAT-V (verbal) and the SAT-M (math). Flynn goes on to point out that simultaneous with the above mentioned IQ gains the opposite trend was noted in SAT verbal scores. SAT scores can be raised with coaching, but improvements are subject to a law of diminishing returns. Math scores rise by roughly 30 points after 40 hours of coaching and verbal by about 20, but continued improvement of even 50% in scores is not achieved by putting in even six times that number of hours.[24]

Testing has generally enjoyed the support of broad public opinion. In 1979, the Gallup Organization asked a representative sample of Americans what they thought of standardized tests. Eighty-one percent responded that they were "very useful" or "somewhat useful."[25] At the same time a powerful coalition of the National Education Association,

[22] Herrnstein/Murray, 1994, 345.
[23] Flynn, 1984.
[24] Hernstein/Murray, 1994, 401.
[25] Lerner, 1980, 121.

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National Association for Colored People, and Ralph Nader's followers adamantly opposed them. The coalition had many influential supporters in government and the press. Dan Rather, for example, in the 1975 CBS news special *The IQ Myth* declared that not only are IQ tests relatively useless as measures of intelligence, but they are biased as well, for "it's economic class that marks the main dividing line on IQ scores."[26] But the coalition did not have the general support of one group that is allied with it on many other issues: Jews invariably come off quite well in testing, and thus it is not surprising that the American Jewish Committee, the Anti-Defamation League, and the American Jewish Congress have all filed amicus briefs with the Supreme Court in opposition to Affirmative Action programs.[27]

G-Loading

Does such a thing as *general intelligence* ("G") exist, or does each individual possess a disparate collection of unrelated abilities, that is, multiple intelligences? This scientific discussion of "unitary intelligence" is fraught with political significance because it can be interpreted as providing a general measure of a person's overall worth or ranking.

Proponents of general intelligence, beginning with Charles Spearman in the early twentieth century, have pointed out the positive correlation between spatial, numerical, and verbal abilities. An IQ score is essentially a numerical expression of G. On the other hand, there is no denying the existence of *idiot-savants* – people who have difficulty in coping with even the most elementary everyday tasks, but who, for example, may be accomplished musicians or sculptors, or who can add up a series of numbers with no less precision than a calculator, or who can easily recount the weather conditions on some randomly selected day in the eighteenth century. That is, the correlation between their one, special ability and their other abilities is negative. And we need not limit ourselves to the exceptional. When specialized aptitude tests were administered to a group of students in place of global measures of intelligence, more than half of them scored in the top 10% on a specific ability.[28]

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[26] Snyderman/Rothman, 1986, 83.
[27] Finkelstein, 2000, 36-37.
[28] Tucker, 1994, 219; Cited by B. S. Bloom, "Testing Cognitive Ability and

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How then to compare or evaluate disparate abilities? The significance of G-loadings may well be exaggerated, or even a *non sequitur*. Given the limited geographical space occupied by the brain, hyperdevelopment of certain abilities may even necessarily come at the expense of others. In many ways the question is like the proverbial glass which is either half-empty or half-full, depending on the observer's point of view.

IQ Decline

Writing about IQ decline is something like having to explain long division, but radical egalitarianism has been so successful in suppressing genetic explanations that the topic has to be presented anew each time, as if it were a novel theory. The kernel of the issue is that in modern society individuals of high intelligence tend to have fewer children than persons of low intelligence and that innate ability is thus in steady decline.[29]

Abortion is significant in terms of eugenics to the degree that it affects selection, particularly when the service is readily available to high-IQ groups, who can easily pay for it, but denied to low-IQ groups, who are dependent on receiving the service on a subsidized or free basis. The abortion rate is related to years of education, which can be used as an imperfect substitute for IQ. In 1979 the standardized U.S. abortion rate by years of education for women 20 years of age and older was 44.3 for women with a high school education, but only 3.2 for those who had less than eight years of schooling.[30]

While "Total Fertility Rates" (TFR – the number of children a women has in her lifetime) represent an important yardstick, generational length also plays a role in dysgenic fertility patterns. Obviously, the earlier a woman begins having children, the more offspring she can bear. In societies where fertility rates hover around replacement levels, the point in her life at which a woman opts to bear children might appear irrelevant, but generational length can be significant, regardless of the TFRs of the women involved. Imagine two groups, in one of which women have their children at the average age of 20 and the other at 30. The first group will have 50% more children than the first, even if the TFR is identical. In the New York

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Achievement," *Handbook of Research on Testing*, ed. N.c. Gage, 1963, 384.

[29] See Herrnstein/Murrray, 1994, for a discussion, 341-368.

[30] Henshaw/O'Reilley, 1983, 10.

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Longitudinal Study of Youth, for example, women in the bottom 5% of intelligence had their first baby more than seven years earlier than women in the top 5%.[31]

We need to question the consequences of selecting out young women of ability to pursue education and careers, thus reducing their fertility (in 20% of U.S. couples delayed fertility turns out to be cancelled fertility) while at the same time remunerating young women of lesser ability on the basis of how many children they bear, and even denying them abortions when they themselves request them.

Another significant dysgenic factor is war. The creature who sees himself as molded in the image of God has used his improved technology to do vastly greater violence, not only to his environment, but to himself as well. And it has been the egalitarians, not the hereditarians, who have been the least squeamish about murder and exile, be it in Russia, China, or Cambodia. There is a sad consistency to their logic: if everyone is the same, anyone who interferes with achieving utopia in our time can simply be eliminated and replaced when the next generation shows up.

War as a destructive mechanism of natural selection became a frequently discussed topic when "the flower" of Europe's youth marched off to die *en masse* in the trenches of World War I. It was, after all, this particular conflict which introduced IQ testing to select out young men of ability more accurately for use as cannon fodder.

In instances of violent civil conflict, as in Marxist Russia or Maoist China, force is targeted most heavily at the real and potential opposition. Since opposition by definition involves thought and ideological dedication, the targets of destruction are, more frequently than not, persons of ability. The phenomenon has been christened "aristocide" by the historian Nathaniel Weyl.[32]

There are a number of crucial questions that have to be resolved to produce such a damage report: I performed a statistical analysis of a hypothetical model of IQ lowering in a hypothetical population in which 10% of the population was murdered with a mean IQ two-thirds of one standard deviation

[31] Herrnstein/Murray, 1994, 351.
[32] Weyl and Possona, 1963; Weyl, 1967.

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(10 points) above the general population mean, calculating in the mean age at death and estimated already-accomplished fertility. The result was a relatively modest lowering of the mean population IQ, but disastrous reductions in the number of persons with exceptionally high scores.[33]

The contribution of outstanding individuals to culture, science, and the general quality of life is disproportionate to their numbers. Just imagine what the history of music would be like without just a handful of the great composers – Bach, Beethoven, Mozart, Brahms, Stravinsky, Mendelssohn. The same sort of "short list" could be made up of physicists, mathematicians, philosophers. Eliminate these geniuses and the average ability level of the next generations will not be altered perceptibly, but how impoverished our world would be!

The consequences of such a process are obviously alarming. Even with a relatively stable mean IQ, a society in which the intellectual leadership is significantly reduced is an impoverished society – at least relative to its original state. The lesson to be drawn is that the turbulence and magnitude of social upheaval do not have a necessary relationship to their genetic consequences.

Germ-line Intervention to Reduce Genetic Illnesses

Medicine is intended largely to benefit its creators – the currently living. Thus, if we speak about illness, the emphasis is on "horizontally transmitted" infectious diseases over "vertically transmitted" genetic diseases. It is, after all, very difficult for a doctor, a pharmaceutical company, or a hospital to collect a fee from people who have yet to be born. Medicine is a business that depends on paying clients, and the most motivated clients, that is, those who not only can but who are eager to pay, are the ones who are hurting *now*.

The *Encyclopedia Britannica* succinctly presents some of the salient facts related to the 3,500 autosomal dominant, autosomal recessive, and sex-linked disorders that have already been catalogued (the list is rapidly expanding):

> Epidemiological surveys suggest that approximately 1 percent of all newborns have a single gene defect and that 0.5 percent have gross chromosomal anomalies severe enough to produce

[33] Glad, 1998.

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> serious physical defects and mental retardation. Of the 3 to 4 percent of newborns with birth defects, surveys indicate that at least half suffer a major genetic contribution. A minimum of 5 percent of all conceptions that evidence themselves have gross chromosomal anomalies, and 40 to 50 percent of spontaneous abortions involve chromosomally abnormal embryos. About 40 percent of all infant mortality is due to genetic disease; 30 percent of pediatric and 10 percent of adult patients require hospital admission because of genetic disorders. Medical investigators estimate that genetic defects – albeit often minor – are present in 10 percent of all adults.... About 20 percent of all stillbirths and infant deaths are associated with severe anomalies, and about 7 percent of all births show some mental or physical defect.[34]

It gets scarier. Spontaneous mutation rates, genetic "typos," have been estimated at 200 per person,[35] most of which appear to be neutral, but an unknown percentage of which are undesirable when expressed, their effects being cumulative. Aside from genetic anomalies which are necessary and sufficient to cause a specific illness, a much larger number of multifactoral illnesses exist in which certain genes create a disposition toward specific illnesses, for example most cancers, diabetes, and hypertension.

Early eugenicists had the naïve notion that simply preventing persons suffering from genetic illness from having children was sufficient to produce a healthier population with each generation; however, most genes which cause diseases are both recessive and extremely rare. Thus, the number of carriers greatly outnumbers the number of persons actually affected, and the nonreproduction of actively ill individuals could achieve only an extremely slow reduction of the disease in subsequent generations. But genetic engineering techniques are advancing rapidly. It is already possible for carriers of genetic diseases to conceive children *in vitro*, then perform embryo screening, known as preimplantation genetic diagnosis, and select a healthy embryo for implantation in the mother's womb. This is a eugenic technique which is already being implemented on a voluntary, gradual basis. In the not so distant future it will be

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[34] Encyclopedia Britannica, "Genetic disease, human."
[35] Ridley, 2001.

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possible to make changes in the germ cells (those involved in reproduction), and not just in the somatic cells. *Germ-line therapy* does not really fit into either positive or negative eugenics, both of which amount to encouraging or discouraging an individual from entering into the sequence of generations, but it is unquestionably eugenics. When the possibility first arose, the general attitude was one of absolute condemnation; now the tendency is to speak more in terms of a moratorium of this new therapy. The bioethicist Fritz Mann at the Free University of Brussels writes:

> Aside from religious grounds, there exists no ethical justification for not influencing the germ line. If one day a cure is discovered for curing a hereditary disease in this fashion, not only for its bearer, but for all his descendants, what reason could there be for forbidding it?[36]

Such an achievement will represent a eugenic breakthrough, but the puzzle of genes and their interactions is only beginning to be solved. Nevertheless, geneticists are already altering the germ lines of plants and animals, and human germ-line therapy is only a question of time. In the meantime genetic counseling and treatment on the level of somatic cells (those not involved in reproduction) are on occasion helping the currently living at the expense of future generations. A prospective parent who knows he or she is the carrier of a recessive gene which can cause illness in subsequent generations, can selectively abort fetuses in which the gene will be actively expressed. Thus, the immediate children of the union are free from the illness, but the number of carriers of the recessive gene increases further down the generational chain.

The question is: do parents have a moral right to bring children into the world who will be disadvantaged by their heredity? To quote the philosopher Emmanuel Lévinas, "my son is not simply my creation, like a poem or an object. He is not my property."[37] Can parental responsibility be sloughed off, denied? Marcus Pembrey, a professor at the Institute of Child Health at the University of London, in discussing genetic counseling

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[36] Mann, Fritz, "Eugénique et éthique commune dans la société pluraliste," Missa/Susanne, 1999, 140.

[37] Lévinas, E., *Totalité et infini: Essai sur l'extériorité*, Coll. *Biblio Essais*, No. 4120, 1971, pg. 310; quoted in Missa/Susanne, 97.

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argues that

> The aim should not be to reduce the birth incidence of genetic diseases, because to make that the objective of the services would be to by-pass the mother's choice in the matter of selective abortion... The view that reduction in the birth incidence of genetic disorders is not an appropriate objective for genetic services is finding wide acceptance.[38]

This is the so-called "personal service model"[39] of genetic counseling, which subordinates children's well-being to that of their parents. Such a view literally begs to be challenged in the courts, perhaps in *wrongful life* legal suits (which first appeared in the United States in 1964, claiming *wrongful death* suits as a legal precedent), perhaps even on a class-action basis. Whereas we may have previously lacked the knowledge to reduce genetic illnesses, the ignorance argument will have less and less weight in the future. The parental appeasement posture will not be comparable even to the Thalidomide baby scandal of 1957-1961, for this will be a willful crime, one committed with full knowledge and intent. It will also be a crime committed against one's own children.

Germ-line interventions will encounter resistance from people who feel, some on religious grounds, that such therapy is "unnatural," and that we have no right to "play God." Even conventional care is rejected, for example, by certain religious groups, and one comes across newspaper articles from time describing a family whose child has died for lack of medical treatment. There will also be nonreligious objections by people who are wary of making mistakes, and indeed errors are a real possibility just now. When, however, we will have achieved a much better understanding of human genetics, the nonreligious objectors will have considerably less wind in their sails.

Israel has been a forerunner in eugenics. In the words of Gideon Bach, head of Genetics at the Hadassah-Hebrew University Medical Center in Jerusalem:

> We now know that most, if not all, human disorders have a genetic background, and we're acquiring the tools to study,

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[38] Pembre, M., "Prenatal diagnosis and its ethical implication," A Report to the European Commission Group of Advisors on the Ethical Implication of Biotechnology, October 1994, 3-4; quoted in Missa/Susanne, 38-39.

[39] Brock *et al.*

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> treat and eventually prevent or cure them.... Israel, with many inbred ethnic groups, has proven a rich human laboratory for genetic detectives. It's far easier to trace genetic anomalies in inbred groups with homogeneous pedigrees.[40]

Ashkenazim, who until some forty years ago largely intermarried, carry a dozen recessive genetic diseases with relatively high frequency. The best known is an autosomal disorder christened Tay-Sachs after its description in 1881 by the British ophthalmologist Warren Tay. It is caused by the hereditary lack of a crucial enzyme which normally breaks down fatty waste products found in the brain. If both parents are carriers of the gene, the child has a 25% chance of suffering from the disease, and a 50% chance of being a carrier. One in 27 Jews in the United States carries the gene. A baby suffering from the disease at first appears normal, but becomes hypersensitive to sound after a few months. Eventually the child becomes deaf, blind, mentally retarded, and unresponsive to outside stimuli. Death results by age five.

In 1985 Rabbi Joseph Eckstein, citing references to genetics and eugenics in the Bible and the Talmud, founded the international genetic testing program call Dor· yeshorim ("generation of the righteous") with the goal of preventing further children from being born with the illness. In the program, Orthodox Jewish students are tested to determine if they carry the gene. If only one prospective parent is a carrier, they are not advised against marriage, but if both test positive, they are advised to choose a different marriage partner. Unfortunately, the ultimate result of this practice may well prove to be dysgenic, in that it could possibly increase the number of carriers and ultimately make for a still higher genetic "load" further down the chain of generations.

Israel has one of the highest screening rates in the world, testing well over ten thousand people a year.[41] The writer Naomi Stone expresses what is evidently the general Jewish attitude toward prevention of Tay-Sachs:

> Perhaps, the disease can be eradicated entirely from populations where it is concentrated, and if this were the case, who could reasonably express qualms?... I am an Ashkenazi

[40] Elliman, 2001.
[41] Elliman, 2001.

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Jew, and I know that it is my obligation to be acutely aware of my heightened risk factor for the disease.[42]

Understandably, there is some resistance to eugenic practices in the United States among representatives of the handicapped community. One internet document reads:

> The underlying issue in eugenics is that someone decides, based on stated or unstated values, which characteristics are worthy enough to be part of society and which are not [Discrimination]... The key question is how a society (social eugenics) or a person (personal eugenics) decides which characteristics are permissible in an offspring/offspring to be. Can a society influence or regulate the decisions of social/personal eugenics? Is there a rational way to distinguish between Tay-Sachs, beta-Thalassemia, sickle cell anemia, thalidomide, Alzheimer, PKU, gender, sexual orientation (if a way were ever found to predict it), mental illness, cystic fibrosis, cerebral palsy, spina bifida, achondroplasia (dwarfism), hemophilia, Down Syndrome, coronary heart disease, osteoporosis, and obesity?... A war of characteristics is on, which will disenfranchise many characteristics from the human right movement and from equality rights. This has to stop."[43]

While this anonymous author does indeed raise thorny questions with regard to certain characteristics – for example, sexual orientation, dwarfism, and overweight – the defense of some of the named horrendous diseases is dismaying, albeit stemming from a legitimate and well-founded fear of discrimination against the persons who suffer from them. It is our duty to ensure that we indeed discriminate against the disease, and not against the victims.

Scientific Method

Any attempt to rationally channel the sexual act requires that society first adopt a rational attitude toward the topic and dismantle the devilish scaffolding of taboos, phobias, neuroses, and fetishes that has been erected around human reproduction.[44] Given the fundamental continuity of the human animal with the entire biological kingdom in general, and with

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[42] Stone, 2000.
[43] Eugenics – Euthenics – Euphenics.
[44] Lo Duca, 1969.

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mammals specifically, including such intimately related species as the higher primates, the revolution in developmental and molecular biology is resetting the intellectual climate, conceptualizing human breeding in accordance with the principles of animal breeding.

Genetic selection presupposes genetic variation; otherwise there would be nothing to select from. Heritability is the yardstick by which both natural and artificial selection are measured. Heritability scores are mathematical correlations ranging from 1 (a parental trait is inevitably passed on to the children) to 0 (the children are no more or less likely to possess it). Although the heritability of any trait or combination of traits can be measured along this same scale, it is the intelligence controversy which has attracted the most heated attention.

The heritability of economic traits has been intensively studied for farm animals. For example milk production is 0.25, yearling body weight in sheep is in the range of 0.2 – 0.59, and feedlot gain in beef cattle is 0.5 – 0.55.[45] The heritability for height among white European and North American populations is 0.9.[46] Using twin data from twin studies, Thomas Bouchard and others have placed the overall heritability of personality at about 0.5. Heritabilities of social attitudes are even higher: 0.65 for radicalism, 0.54 for tough-mindedness, and 0.59 for religious leisure time interests. Occupational interests correlate at about 0.36.[47] One study of monozygotic (identical) and dizygotic (fraternal) twins showed that monozygotic twins showed a significantly higher correlation than dizygotic twins for being frank, active, talkative, gregarious, extraverted, assertive, calm, self-confident, even-tempered, emotional stability, kind, polite, agreeable, pleasant, agreeable, thorough, neat conscientious, systematic, conscientious, inventive, imaginative, original creative, open to experience, refined, sophisticated, and flexible. Model-fit analyses suggested about 40% genetic, 25% shared environmental, and 35% nonshared environmental influence.[48] Low estimates of IQ heritability in human populations are generally on the order of .4, with .8 being the ceiling for high estimates.

[45] Bearden/Fuquay, 2000, 2.
[46] Wright, 1997, 25.
[47] Wright, 1997, 147-148.
[48] Borkenau et al., 2001.

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How to disentangle intelligence and environment? The correlation between the IQ scores of the same person taking the same test a second time can serve as a benchmark; it is .86.[49] The prominent English psychologist Cyril Burt located a number of identical twins who had been raised separately, and in 1966 reported an IQ correlation of .77 among 53 pairs of identical twins whom he had studied. When Burt, who died in 1971, was posthumously accused of having falsified his data, the purported scandal made for major news. Now, however, a great deal more research has been done on the topic, and Burt's findings have been replicated repeatedly, including in a study of 8,000 twin pairs conducted at the University of Minnesota by Thomas Bouchard, which came up with a correlation of .76 for identical twins reared separately and .87 for those reared together. [50] In another study of adopted children conducted by Sandra Scarr and Richard A. Weinberg, also at the University of Minnesota, the adoptees' IQ scores correlated significantly more positively with those of their biological than with those of their adoptive parents.[51] Thus, while *nurture* does play a role in intelligence, at least as measured by IQ tests, it is considerably smaller than that of *nature.*

Natural selection depends not only on genetic variation, but also on environmental variation. The greater the range of the two forms of variation, the greater the intensity of selection, that is, the faster the rate of evolution. For millennia now, humankind, without any knowledge of Darwin's theory of evolution, has been able to pursue artificial selection successfully in plants and animals by simply breeding the most desirable individuals with each other under the principle "like breeds like." This is still the chief methodology of animal breeders. When, however, low variation or low heritability impede selection, modern genetic tools are employed: frozen semen, separation of male- and female-producing sperm, superovulation, embryo storage and transfer, *in vitro* fertilization, and transfer of genetic material.

The use of artificial insemination renders eugenic measures applied to males far more effective than for females. For example, by employing modern techniques a bull can

[49] Wright, 1997, 61.
[50] Wright, 1997, 61.
[51] Wright, 1997, 63.

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theoretically be made to produce 200,000 breeding units of semen per year.[52] One bull already has 2.3 million granddaughters.[53] Furthermore, sperm can be frozen for long-term storage and later use.

If there is no shortage of premium-quality sperm, the same is actually also true of eggs. Only a tiny percentage of the eggs created in human females at birth are ever fertilized. *In vitro* fertilization with resulting embryos implanted in wombs other than that of the original mother would make it possible to achieve a revolution in population quality without creating a quantitative bottleneck.

Cloning

Although far from perfected in mammals, cloning is a new reproductive methodology. During the process a genetically identical copy of a biological organism is produced by asexual means. Cloning is common in nature: any plant that can grow from a cutting, or animal tissue that can reproduce itself in a Petri dish, in the process, also produce clones.

During laboratory cloning ("nuclear transfer"), the genetic code of an individual organism is inserted into an egg that has been stripped of its own nucleus, and that egg is then implanted in the womb of a "birth mother," just as is already done in cases of *in vitro* fertilization. The child who is born is the donor's identical twin. The first clones were produced in the late 1950s. The cloning of the sheep "Dolly" did not take place until 1996. Other mammals already cloned by scientists include rabbits, cows, goats, pigs, cats, and mice.

The current debate on cloning is focused on therapeutic cloning. For example, it may be possible in the future to clone cells from a person suffering from cardiac insufficiency, develop those replacement cells into heart muscle, and then transplant that muscle back into the same patient without fear of rejection.

The real issue, however, is need to research the possibility of reproductive cloning – conceiving babies who will be brought to term and who will enter the general population as independent persons. Reproductive cloning can be pursued for two reasons: a) as a device to combat infertility, and b) to enrich the human gene pool. I refer here to the latter as "eugenic cloning."

[52] Bearden/Fuquay, 2000, 151.
[53] Laris, 2002.

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Cloned embryos, as well as embryos produced during *in vitro* fertilization, could be implanted in a womb which might be human, animal, or even artificial. "We can see all too clearly where the train is headed, and we do not like the destination," wrote the University of Chicago's Leon Kass, chief of George W. Bush's Bioethics Council.[54] Revealingly, Kass has also come out against the dissection of cadavers, organ transplantation, in-vitro fertilization, and cosmetic surgery. Virginia Postrel, editor-at-large of Reason magazine, responded to the views expressed by Kass by commenting that "This isn't about the 20th century. It's about the 16th."[55]

Much of the criticism of cloning stems from a fundamental misunderstanding – that there is an intent to produce a race of identical creatures lacking any and all individuality. This is not the case, and such a practice has never been advocated. Rather, it is the expectation that persons born as the result of a cloning process would enter into normal sexual relations with the vastly greater population of individuals born as the result of traditional sex and would multiply in the traditional fashion, thus increasing the frequency of advantageous genes in the following generation.

Despite some well-publicized successes, there are still many difficulties to be worked out. Cloning techniques are still in the developmental stage, which explains the failure rate, which is still high. For example, cloned animals often have abnormal placentas – a factor that affects size and survival. Part of the problem evidently lies in abnormalities in gene expression.

Much of the resistance to cloning comes from religious groups, but is not limited to them. Aside from a fully legitimate fear that we may still not be knowledgeable enough to proceed immediately to human cloning, the resistance to cloning *per se* is startlingly reminiscent of the traditional argument against evolution – that it is "an assault on human dignity." That was precisely the text, and heading, of an open letter addressed to President George W. Bush in the *Washington Times* in January of 2002, signed by 29 conservative political and religious leaders.[56]

The media have actively incited public fear of cloning, for example in the 1976 novel, *The Boys from Brazil* by Ira Levin,

[54] Weiss, 2002 A10.
[55] Mooney, 2001.
[56] Kristol, 2002.

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made into a film starring James Mason in 1978, and most recently in 2002 with the appearance of *Star Wars Part II: Attack of the Clones.* There is even a canard as to whether cloning methods that might lead to the cloning of a human being might be patentable.

The *New York Times* is entirely correct: "Opposition to reproductive cloning is universal in Congress,"[57] and if any senator or congressman secretly harbors a more benign view of research into this potential procedure, the chance that he or she will express that opinion publicly is absolutely zero. Congress has resolved to criminalize reproductive cloning, even though, as can be judged from the title of this book, Congress's unanimity in this area is not shared by everyone in the scientific and scholarly community. I argue here against the criminalization of research into reproductive cloning – not simply as a treatment for infertility but explicitly to raise the genetic quality of the human population.

The overwhelming majority of people want health and intelligence for their children. It is incredible that I should even have to make an argument against a heavy-handed dictatorial government forbidding them to pursue this goal. This is their human right, their parental obligation. How has it been possible to so demonize reproductive cloning?

Eugenic cloning is a new thought for most people, but it is part of the road to utopia – a utopia that can and will be ours if we don't consciously reject it. We can have a better world – easily and painlessly – and we must fight governmental attempts to undermine our right to do so.

Animal breeding methods usually amount to producing a specific type on the basis of very strict characteristics. The same is true for plant selection, in which a rich variety of strains is usually replaced by a few monocultures. Nothing of the sort would be appropriate for human populations. Human selection would be aimed at a far more limited reduction in genetic variance. Diversity is not only a great source of strength, it is also an integral part of what we are and want to be. A certain reduction of this variability, on the other hand, is the mathematical goal. Man is too broad, said Dostoevsky, he needs to be narrowed. We might not always agree on what is desirable,

[57] Stolberg.

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but we do have a pretty good idea of what is not – low intelligence, a lack of altruism, and genetic illness. Even a very significant channeling of motherhood and a far more stringent selection among men would still leave billions of people reproducing. By comparison, all thoroughbred race horses stem from three MiddleEastern stallions, and natural selection can be even more draconian.

Mapping the Human Genome

Genetics is a very young science. Evolution was not discovered until the late 1850s. In 1866 the Austrian monk Gregor Mendel had begun to attempt to pry open the secret of creation when he published the results of his controlled pollination of the garden pea, but his discoveries were ignored for the rest of the century, and Galton never learned of them. Even the discovery of the mechanism of fertilization as a union of the nuclei of male and female sex cells was not made until 1875; 1888 saw the discovery of certain deeply stained bodies in cell nuclei, which were christened "chromosomes," and in 1909 the word "gene" came to be applied to the Mendelian factors of heredity. The first *in vitro* fertilization (rabbit and also monkey) was not achieved until 1934, and as for the double helical structure of DNA, its discovery dates back only to 1953. This is all so incredibly recent that, although early eugenicists had set their goals and methods, they were largely ignorant of the mechanisms involved.

In 1999, even as we forged into the new millennium, the Gallup Poll found that 68% of Americans still favored teaching creationism together with evolution in the schools, with 40% favoring exclusively creationism; 47% percent subscribed to the view that "God created human beings pretty much in their present form at one time within the last 10,000 years of so" (up from 44% in 1982!).[58] In the words of the theologian John C. Fletcher, such "controversy clouds rational discussion with fear and misunderstanding."[59]

The mapping of the human genome is still in an extremely early stage. The amount we don't know vastly dwarfs what we do. There appear to be approximately three billion bases, or chemical letters, making up the nucleotide sequences that form

[58] Gallup Organization, February 14, 2001.
[59] Fletcher, 1983, 519.

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26,000 to 38,000 genes which code directly for proteins. Just how genes and the proteins they produce interact is still poorly understood.

But protein-coding genes comprise only 2% of the human genome. The functions of other DNA sequences are still largely a mystery. We do know that some of them contain switches that turn genes on and off, and we have learned that there are telomeres at the ends of the chromosomes, whose shortening appears to be related to the aging process, and nonfunctional genomic parasites, whose only function in our bodies seems to be to replicate themselves. An estimated 40-48% consist of repeat sequences. Even when we will have sequenced the genome, we will still have to determine how these data relate to expression. The sequences are only a parts list to a grand machine, the outlines of which we are only beginning to trace.

Scholarly opinion is rapidly growing more cognizant of the role of genes in human society. In 1998 University of Massachusetts political scientists Diane Paul wrote that just fourteen years earlier, in 1984, she had labeled as:

> "hereditarian" or "biological determinist" the view that differences in mentality and temperament were substantially influenced by genes – employing these terms as though their meanings were unproblematic. That usage today would surely be contested. For the view implicitly disparaged by these labels is once again widely accepted by scientists and the public alike.[60]

The bottom line is that with every day we gain greater knowledge and that in the not all that distant future we will be able to predict with a high degree of certainty the *genetic load* which we are foisting on future generations and the price that these our descendants will pay for our refusal to intervene.

Essential Conditions

While we cannot predict the distant future, we can with a fair degree of confidence trace out those conditions which will always be essential:

1. a supply of natural resources;
2. a clean, biodiverse environment;

[60] Paul, 1998, 12-13.

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3. a human population no larger than the planet can comfortably sustain on an infinite basis;
4. a population which is healthy, altruistic, and intelligent.

Thus, guided selection needs to be viewed as an integral component of an environmentalist policy. Eugenics is *human ecology.*

The blessings which we are reaping from the industrial revolution are, to a significant degree, unsustainable. We are systematically depleting the planet's riches. Debates as to how long this or that resource will hold out are essentially trivial in the greater scheme of things, for eventually we will have thoroughly sifted through the earth's accessible subsoil. The only resources that we can count on over the long run are those which are truly renewable or inexhaustible. As for science-fiction fantasies about relocating to other planets, it seems highly improbable that this particular "trash-the-world" vandalism will ever be feasible for billions of people.

Of course, it can be argued that the inevitability of resource exhaustion makes it a non-topic. What is the difference if this process is completed sooner or later? The response is a moral one. We embarked upon the industrial revolution only two centuries ago, and we have a huge transition to go through if we do not wish our offspring to return to a hunter-gatherer economy where there will be precious little left either to hunt or to gather. We need to husband our precious, finite resources to get through this transition as in as chary a fashion as possible.

Traditional societies live in harmony with nature. Modern industrial society clearly does not, and we have already overwhelmed much of Nature's ability to heal itself. An enormous number of species have been wiped out, while still others have been transported by man to different environments where, lacking natural enemies, they have followed the example of man in replicating his devastation. Globalization is already delivering devastating blows to the planet's biodiversity. As for pollution, while it has gone so far that it becomes too painful to even read about in the papers, much of it can still be reversed.

And there are population problems which may overwhelm the planet in a relatively short period. In traditional societies children, being the only form of social security around, represent for their parents an economic good. More is better. In

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economically developed societies, on the other hand, children are strictly an economic liability, and the surest way to maximize consumption (for many the ultimate purpose of life) is at the very least to reduce the number of children.

At the end of the twentieth century the Total Fertility Rate in East Asia was below replacement at 1.7. The national TFR had even dropped to 1.4 in Japan, and as low as 1.1 in Taiwan. Europe's TFR had fallen to 1.4. Canada's and the United States' TFR were 1.5 and 2, respectively. In sharp contrast, Latin America's TFR was 2.9, while Africa's was 5.4. The global TFR was 2.9, the planet's population having swollen six-fold over the last 250 years. It is still growing by leaps and bounds, albeit more slowly than formerly, and that growth is taking place largely in the poorest countries. While it is hoped that the entire world will eventually pass through the demographic transition, it is not impossible that individual countries will undergo horrendous, Malthusian collapses before this happens. Bangladesh, for example, which has a population of 134 million on a land mass roughly the size of the state of Wisconsin, most of which is an alluvial flood plain frequently ravaged by hurricanes, is projected to increase its population to 209 million by the year 2050! Other countries provide even more rapid growth rates: The Palestinians are predicted to increase their numbers to form a population 3.4 times its current size during the same period, and this on land where water is already in critical shortage. India is projected to add as many people as Europe's entire population by that time.[61]

Demographic predictions are not made with any claim to precision. There are "low," "medium," and "high" projections. And there are questions to which no one has any answers. What is the long-term *carrying capacity* of the planet? How many lives will be carried off by phenomena that reduce the population, not by decreasing fertility, but by increasing mortality. Already there are projections of a loss of fifty million people from AIDS. Where will it end? What new plagues lurk around the corner? Military conflicts could easily murder billions of people. Demographic predictions are really no better than stock market predictions. In any case, the wisest approach is clearly to err on the side of caution. A smaller population capable of surviving by

[61] Population Reference Bureau, *2001 World Population Data Sheet.*

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the use of *current* renewable resources will create less stress and make the transition to a new economy more manageable.

Altruism

Before further discussing the consequences of such a path of evolutionary development, we need to discuss a central idea of sociobiology. Darwin had pointed out that natural selection favors behavioral patterns which promote survivability. Suicidal behavior, it would seem, should lead to the destruction of the animal involved, thus preventing it from reproducing. How then, sociobiologists asked, could the behavior of a honeybee be explained, which in stinging a perceived threat to the hive, rips out its own belly together with the stinger and thus perishes? The answer is that survivability of the genotype is crucial, not of the individual. Although the individual bee dies, the other members of the hive are genetically identical copies, and the chances for the survival of their genes are improved by the sacrifice of the individual.

What sort of a society do we want? To the degree that altruism is determined by our genes, artificial selection could theoretically make it possible to create a social profile skewed toward diffuse altruism. The difficulty of working toward a better society is that such a process necessarily entails effort and even sacrifice on the part of the currently living, who have the power of absolute dictators. Our altruism is relatively strong with regard to our children and even our grandchildren, but as we move down the chain of generations, the degree of genetic kinship becomes more and more diluted and the former altruism rapidly dwindles away. "What have future generations ever done for me?" is a not-uncommon response. Or: "They'll think of something."

The civilization created by the industrial revolution is not sustainable, and we as a species are in genetic decline. The fact that so few care is testimony of what terrible shape we really are in. Even the best-intentioned opponents of eugenic intervention act as lawyers for the selfish interests of the currently living. They advance no viable alternative.

References

American Association for the Advancement of Science (AAAS).
2000 "The Human Genome," *Science*, special issue, Vol. 291, No. 5507.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Associated Press.
1992 "Study Shows Brains Differ in Gay, Heterosexual Men: Anterior Commissure Area Larger in Homosexuals," *Washington Post*, August 1, A2.
Associated Press.
2001a "Population rises halt in developed nations," *Washington Times*, May 22, A6; quoting Population Reference Bureau.
Associated Press.
2001b "Scientist says he will clone humans in U.S. or abroad," *Washington Times*, December 15, A2.
Atkinson, Richard.
2001 "SAT Is to Admissions as Inadequate Is to..." *Washington Post*, March 26, A1.
Bailey, Michael; Pillard, Richard C.
1991 "A Genetic Study of Male Sexual Orientation," *Arch. Gen. Psychiatry*, 48, 1089-96.
Bajema, Carl Jay.
1976 *Eugenics Then and Now.* Dowden, Hutchinson & Ross, Stroudsburg, Pennsylvania.
Balter, Michael.
2001 "Anthropologists Duel Over Modern Human Origins," *Science*, March 2, Vol. 291, 1728-1729.
Baur, Erwin; Fischer, Eugen; Lenz, Fritz.
1931 Human Heredity. The Macmillan Company, New York.
Bearden, H. Joe; Fuquay, John W.
2000 *Applied Animal Reproduction* (Fifth Edition). Prentice Hall, Upper Saddle River, New Jersey.
Binding, Karl; Hoche, Alfred.
1920 *Die Freigabe der Vernichtung lebensunwerten Lebens.* F. Meiner, Leipzig.
Blank, Robert H.
1982 *Torts for Wrongful Life: Individual and Eugenic Implications.* Social Philosophy and Policy Center, Bowling Green, Ohio.
Bodart, Gaston.
1916 *Losses of Life in Modern Wars.* H. Milford, London/New York.
Borkenau, Peter; Riemann, Rainer; Agleittner, Alois; Spinath, Frank M.
2001 "Genetic and Environmental Influences on Observed Pesonality: Evidence from the German Observational Study of Adult Twins," *Journal of Personality and Social Psychology*, Vol. 80, No. 4, 655-668.
Bowler, Peter J.
1986 *Theories of Human Evolution: A Century of Debate, 1844-1944.* Johns Hopkins University Press, Baltimore/London.
Brock, Dan; Buchanan, Allen; Daniels, Norman; Wickler, Daniel.
2000 *From Chance to Choice: Genes And The Just Society.* Cambridge University Press, Cambridge, U.K./New York.
Broyde, Michael J.
Undated between 1997 and 2002
"Cloning People and Jewish Law: A Preliminary Analysis." WWW, http://jlaw.com/Articles/Cloning.html.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Campbell, Joseph.
The Power of Myth. Interview with Bill Moyers, Public Television.
Cavalli-Sforza, L. L.; Bodmer, W. F.
1971 *The Genetics of Human Populations.* W. H. Freeman, San Francisco.
Central Committee of the Communist Party of the Soviet Union.
1936 "On Pedological Distortions in the Commissariats of Education," *Pravda,* July 5.
Christian for the Cloning of Jesus.
"The Shroud of Turin.":
http://www.geocities.com/Athens/Acropolis/8611/page2.htlm.
Clark, A. J.
1998 *Animal Breeding: Technology for the 21st Century,* Harwood Academic, multiple publishing sites.
Cole, Tim.
1999 *Selling the Holocaust: From Auschwitz to Schindler: How History is Bought, Packaged, and Sold.* Routledge, New York.
Collange, Jean François; Houdebine, Louis-Marie; Huriet, Claude; Lecourt, Dominique; Renard, Jean-Paul; Testart, Jacques.
1999 *Faut-il vraiment cloner l'homme?* Presses universitaires de France, Paris.
Cooperman, Alan.
2002 "Number of Jews in U.S. Falls 5 Percent: Report Cites Couples' Decision to Delay Having Children as Principal Cause, " *Washington Post,* October 9, A3.
Crew, F. A. E.; Darlington, C. D.; Haldane, J. B. S. Harland, S. C.; Hogben, L. T.; Huxley, J. S. Muller, H. J.; Needham, J.; Child, G. P.; David, P. R.; Dahlberg, G.; Dobzhansky, Th.; Emerson, R. A.; Gordon, C.; Hammond, J.; Huskins, C. L.; Koller, P. C.; Landauer, W.; Plough, H. H.; Price, B.; Schultz, J.; Steinberg, G.; Waddington, C. H.
"Social Biology and Population Improvement," *Nature,* Vol. 144, No. 3646, 521-522.
De Marco, Donna.
2001 "What's in a name?: For direct marketers, a gold mine of data about a consumer's tastes, pocketbook," *Washington Times,* June 17, A1, 6.
Disability Rights Advocates
Center for Genetics and Society:
http://www.genetics-and-society.org/constituencies/disability.html.
"Docs Grow Heart Cells,"
2001 DNA Diagnostics Center, August 2:
http://www.dnacenter.com/geneticnews.html.
Domhoff, G. William.
1983 *Who Rules America Now? A View for the '80s.* Prentice Hall, Englewood Cliffs, New Jersey.
Dougherty, Carter.
2001 "Free censorship with purchase? ISP blocks access to sites without consent to curb 'spam,'" *Washington Times,* May 30, B8, 9.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Drouard, Alain.
1999 *L'eugénisme en questions: L'exemple de l'eugénisme "français."* Ellipses, Paris.
Duster, Troy.
1990 *Backdoor to Eugenics.* Routledge, New York/London.
Eisenberg, Daniel.
2002 "The Ethics of Cloning." WWW, http://www.us-israel.org/jsource/Judaism/clone/html.
Elliman, Wendy.
2001 "Statistical probabilities and probable cures," *Jerusalem Post,* February 27, WWW.
Encyclopedia Britannica.
2001 "Genetic disease, human." WWW.
Eugenics – Euthenics – Euphenics, WWW.
Eysenck, H. J.
1982. "The sociology of psychological knowledge, the genetic interpretation of the IQ, and Marxist-Leninist ideology," *Bulletin of the British Psychological Society,* No. 35, 449-451.
Finkelstein, Norman G.
2000 *The Holocaust Industry: Reflections on the Exploitation of Jewish Suffering.* VERSO, London/New York.
Fletcher, John C.
1983 "Moral Problems and Ethical Issues in Prospective Human Gene Therapy," *Virginia Law Review,* Vol. 69, No. 3, April, 515-546.
Fletcher, Joseph.
1974 *The Ethics of Genetic Control: Ending Reproductive Roulette.* Anchor Press, Garden City, New York.
Flynn, James R.
1984 "The Mean IQ of Americans: Massive Gains 1932 to 1978," *Psychological Bulletin,* Vol. 95, No. 1, 29-51.
Ford, Gerald.
2002 "Curing, Not Cloning," *Washington Post,* June 5, A23.
Fordham University, WWW.
2001 "Fordham team discovers cause of genetic disorder that affects people of Eastern European Jewish descent,"
Fox, Maggie
2002 "Genie out of the bottle on cloning, expert says," Reuters, May 15, WWW.
Frazer, Lorraine
2002 "In-vitro pioneer backs cloning for infertility, but with safeguards," *London Sunday Telegraph,* reprinted in the *Washington Times,* June 9, A7.
Fuller, John L
"Social Biology: Whence and Whither," *Social Biology,* Vol. 30, No. 1, 112-114.
Gallup Organization
1999 "New Poll Gauges Americans' General Knowledge Levels," July 6.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Gallup Organization
2000 "One in Five Americans Unaware that Either Bush or Gore Is a Likely Presidential Nominee," March 22.
Gallup Organization
2001 "Public Favorable to Creationism," February 14.
Garber, Robert (United States Holocaust Memorial Museum)
2001 E-mail letter to John Glad, December 19.
Gershon, Elliot S.
1983 "Should Science Be Stopped? The Case of Recombinant DNA Research," *The Public Interest*, Spring, No. 71, 3-16.
Gist, John G.
2000 "Wealth Distribution in 1998: Finds from the Survey of Consumer Finances," American Association of Retired Persons, WWW.
Glad, John.
1998 "A Hypothetical Model of IQ Decline Resulting from Political Murder and Selective Emigration," *The Mankind Quarterly*, Vol. 38, No. 3, 279-298.
Glad, John.
2001 "The Current Attitude Toward Eugenics in France," *The Mankind Quarterly*, Vol. 42, No. 1, Fall 2001, 77-89.
Gladue, Brian A.; Green, Richard; Hellman, Ronald E.
1984 "Neuroendocrine Response to Estrogen and Sexual Orientation," *Science*, September 28, Vol. 225, 1496-1499.
Gould, Stephen Jay.
1981 *The Mismeasure of Man.* Norton, New York.
Graham, Loren R.
"Science and Values: The Eugenics Movement in Germany and Russia in the 1920s," *American Historical Review*, 82:1133-1164.
Grobstein, Clifford; Flower, Michael.
1984 "Gene Therapy: Proceed with Caution," *The Hastings Center Report*, April, 13-17.
Guttmacher, Alan F.
1964 "The Tragedy of the Unwanted Child," *Parents' Magazine*, June.
Haller, Mark H.
1984 *Eugenics: Hereditarian Attitudes in American Thought.* Rutgers University Press, New Brunswick, New Jersey.
Hardin, Garrett.
1977 *The Limits of Altruism: An Ecologist's View of Survival.* Indiana University Press, Bloomington, Indiana.
Henderson, Helen.
1999 "Breaking Down Barriers," *Toronto Star*, October 23, http:/www.pcs.mb.ca/~ccd/ts231099.html.
Henshaw, Stanley K.; O'Reilley, Kevin.
1983 "Characteristics of Abortion Patients in the United States," 1979 and 1980," *Family Planning Perspectives*, Vol. 15, No. 1, 5-16.
Herrnstein, Richard J.; Murray, Charles.
1994 *The Bell Curve: Intelligence and Class Structure in American Life.* Free Press, New York.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Hersh, A. H.
1966 "Eugenics," *Encyclopedia Americana: International Edition,* Vol. 10, 567-571.
Hewlett, Sylvia Ann.
2002 "Household Help," a review of *Joined at the Heart: The Transformation of the American Family* by Al and Tipper Gore, *Washington Post, Bookworld,* December 8, 7.
Hirschi, Travis; Hindelang, Michael J.
1977 "Intelligence and Delinquency: A Revisionist Review," *American Sociological Review,* Vol. 42, August, 571-587.
Holden, Constance.
2001 "Study Suggests Pitch Perception Is Inherited," *Science,* March 9, Vol. 291, 1879.
Holmes, Samuel Jackson.
1933 *The Eugenic Predicament.* Harcourt, Brace and Company, New York.
Howells, William White.
1997 *Getting Here: The Story of Human Evolution.* Compass Press, Washington, D.C.
Hunt, Earl.
1995 "The Role of Intelligence in Modern Society," *American Scientist,* July-August, WWW.
Huntington, Ellsworth.
1935 *Tomorrow's Children: The Goal of Eugenics.* Wiley, London, Chapman and Hall, London.
Epigee Birth Control Guide,
2000 "Infertility and Conception" Undated: http://www.epigee.org/guide.
Itzkoff, Seymour W.
2000 *The Inevitable Domination by Man: An Evolutionary Detective Story,* Paideia Publishers, Ashfield, Massachusetts.
Jenkins, Philip.
1982 "The Radicals and the Rehabilitative Ideal, 1890-1930," *Criminology,* Vol. 20, Nos. 3-4, 347-372.
Jensen, Arthur R.
1980 *Bias in Mental Testing.* Free Press, New York.
Jordan, David Starr.
1915 *War and The Breed : The Relation of War to the Downfall of Nations.* Clivedon Press, Boston.
Kahn, Susan Martha.
2000 *Reproducing Jews: A Cultural Account of Assisted Conception in Israel.* Duke University Press, Durham, North Carolina.
Kaiser, Jochen-Christoph; Nowak, Kurt; Schwartz, Michael.
1992 *Eugenik, Sterilisation, "Euthanasie": Politische Biologie in Deutschland 1895-1945.* Buchverlag Union, Halle.
Kristol, William (chairman, the Bioethics Project); Arkes, Hadley (professor of American Institutions, Amherst College); Bauer, Gary (president, American Values); Bennett, William J. (Codirector, Empower America); Bottum, J. (books and arts editor, the Weekly Standard); Bradley, Gerard V. (professor of law, University of Notre Dame); Cameron, Nigel (dean,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the Wilberforce Forum); Casey, Samuel B. (exec. director and CEO, Christian Legal Society); Colson, Charles W. (Prison Fellowship Ministries Chairman, the Wilberforce Forum); Combs, Roberta (president, Christian Coalition of America); Connor, Ken (president, Family Research Council); Dobson, James (president, Focus on the Family); Forbes, Steves (businessman and former U.S. Presidential candidate); Fadkin, Hillel (president, Ethics and Public Policy Center); Fukuyama, Francis (professor of International Political Economy, Johns Hopkins University), George, Robert P. (professor of jurisprudence, Princeton University); Kilner, John (president, The Center for Bioethics and Human Dignity); Land, Richard D. (president and CEO, Southern Baptist Ethics and Religious Liberty Commission); Mitchell, C. Ben (editor, *Ethics and Medicine: An International Journal of Bioethics*); Murray, William J. (chairman, Religious Freedom Coalition); Neuhaus, Richard John (Institute for Religion and Public Life); O'Steen, David (exec. director, National Right to Life Committee); Prentice, David (M.D., Do No Harm); Rios, Sandy (president, Concerned Women of America); Ruse, Austin (president, Catholic Family and Human Rights Institute); Smith, Wesley J. (author); Stevens, David (M.D., exec. Director, Christian Medical Association); Weigel, George (Ethics and Public Policy Center); Weyrick, Paul (Free Congress Foundation).

2002. "An assault on human dignity: President Bush shows moral leadership on human cloning," *Washington Times*, January 10, A17.

Kröner, Hans-Peter; Toellner, Richard, Weisemann, Karen.

1990 "Inwieweit Erwin Baur in die geistige Urheberschaft der historischen Verbrechen, die der Nationalsozialismus begangen hat, verstrickt war order nicht." *Erwin Baur: Naturwissenschaft und Politik.* Max-Planck-Gesellschaft zur Förderung der Wissenschaften, Münster, 1991, WWW.

Lamb, James I.

2002 "Cloaked Cloning," Update, Spring, Lutherans for Life. http://www.lutheransforlife.org/update/2002/spring/cloaked_cloning.htm.

Laris, Michael.

2002 "Herd Round the World: 2.3 Million Granddaughters and Counting For Bull of the Century from Loudoun," *Washington Post*, June 30, A1, 10-11.

Lenin, Vladimir.

1914 "A Liberal Professor on Equality," *Put' pravdy*, No. 33, March 11.

Leonard, Mary.

2002 "Coalition urges a ban on all human cloning," *Boston Globe*, March 22, http://www.boston.com/dailyglobe2/081/nation.

Lerner, Barbara.

1980 "The War on Testing: David, Goliath & Gallup," *Public Interest*, No. 60, summer, 119-147.

Lo Duca, (Giuseppe).

1969 *Histoire de l'érotisme.* La jeune parque, Paris.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Lunden, Walter.
1964 *Statistics on Delinquents and Delinquency*, C. C. Thomas, Springfield, Illinois.
Lynn, Richard.
1996 *Dysgenics: Genetic Deterioration in Modern Populations.* Praeger, Westport, Connecticut/London.
Margolin, C. R.
"Attitudes Toward Control and Elimination of Genetic Defects," *Social Biology*, Vol. 25, No. 1, 33-37.
McConaughy, John.
1933 *Who Rules America? A Century of Invisible Government.* Toronto, Longmans, Green and Co., New York/Toronto.
McNeill, William H.
1984 "Human Migration in Historical Perspective," *Population and Development Review*, No. 1, March, 1-18.
Mednick, Sarnoff.
1985 "Crime in the Family Tree," *Psychology Today*, March, 58-61.
Missa, Jean-Noël: Susanne, Charles (eds.).
1999 *De l'eugénisme dé État à l'eugénisme privé*, DeBoeck Université, Brussels.
Monde, Le
2002 "La naissance annoncée des premiers clones humains," May 24, WWW.
Monde, Le.
2002. La naissance annoncée des premiers clones humains," May 24, WWW.
Mooney, Chris.
2001 "Irrationalist in Chief," *The American Prospect: Online.* September 24. http://www.prospect.org/V12/17/mooney-c.html. Quoting Leon Kass in *Toward a More Natural Science*, 1985, and Virginia Postrel in the *Los Angeles Times.*
Moravec, Hans.
1997 "When will computer hardware match the human brain?" *The Journal of Transhumanism*, Vol. 1, WWW, December.
National Assessment of Education Progress.
National Test Results.
Neel, James V.
1983 "Some Base Lines for Human Evolution and the Genetic Implications of Recent Cultural Developments," *How Humans Adapt: A Biocultural Odyssey*, Donald J. Ortner (ed.). Smithsonian Institution Press, Washington, D.C.
New York Times,
Dr. Frankenstein on the Hill.
Osborne, Frederick.
"History of the American Eugenics Society," *Social Biology*, Vol. 21, No. 2, 115-126.
Paul, Diane B.
1995 *Controlling Human Heredity: 1865 to the Present*, Humanities Press, Atlantic Highlands, New Jersey.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Paul, Diane B.
1998 *The Politics of Heredity.* State University of New York Press, Albany.
Pearson, Ian.
2000 November 17. *The Future of Human Evolution: Part One,* WWW.
Pearson, Roger
1997 *Race, Intelligence and Bias in Academe.* Washington, D.C.
Perkins, Joseph.
2002 "Cloning research under wraps," *Washington Times,* June 5, A14.
Petersilia, Joan; Greenwood, Peter W.; Lavin, Marvin.
1978 *Criminal Careers of Habitual Felons,* National Institute of Law Enforcement and Criminal Justice, July.
Pichot, André.
1995 *L'eugénisme ou les généticiens saisis par la philanthropie.* Paris.
Pichot, André.
2000 *La société pure: De Darwin à Hitler.* Paris.
Pickrell, John.
2001 "Human Cloning: Experts Assail Plan to Help Childless Couples," *Science,* March 16, Vol. 291, 2061, 2063.
Pistoi, Sergio.
2002 Father of the Impossible Children: Ignoring nearly universal opprobrium, Severino presses ahead with plans to clone a human being, WWW.
Pomerantz, G.
1973 "Man without an Adjective," *Ethics,* Vol. 83, No. 2, 126-145.
Population Reference Bureau.
2001 *2001 World Population Data Sheet.* Washington, D.C.
Population Reference Bureau.
Undated *World Population and the Environment.* Washington, D.C.
Price, Joyce Howard.
2001 "Australian scientists fertilize mice eggs without using sperm." *The Washington Times,* July 13, A8.
Rajeswary, L.
1985 "Study Finds Illiteracy Widespread," *Washington Post,* August 3, A8.
Reichler, Max (Rabbi)
1916 *Jewish Eugenics and Other Essays.* New York.
Richards, W. (United States Holocaust Memorial Museum).
2001 E-mail letter to John Glad, December 20.
Ridley, Mark.
2001 "Sex, Errors and The Genome," *Natural History,* Vol. 110, No. 5, p43; WWW (EBSCO).
Roper, Allen G.
1913 *Ancient Eugenics.* Oxford.
Rothman, Stanley; Lichter, S. Robert.
1982 *Roots of Radicalism: Jews, Christians, and the New Left.* New York/Oxford.
Rubin, Debra.
2001 "Wiesel Laments anti-Semitism among Jews," *Washington Jewish Week,* March 22, 29.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Sachedina, Abdulaziz.
1999 "Islamic Perspectives on Cloning,": http://www.people.virginia.edu/~aas/issues/cloning.htm.
Saetz, Stephen B.
1985 "Eugenics and the Third Reich," *Eugenics Bulletin*, taken here from the *Future Generations* website (http://eugenics.net).
Schwartz, Michael.
1995 *Sozialistische Eugenik: Eugenische Sozialtechnologien in Debatten und Politik der deutschen Sozialdemokratie 1890-1933.* Bonn.
Segal, Nancy. L.
1999 *Entwined Lives: Twins and What They Tell Us About human Behavior.* New York.
Smith, Alison.
2002 "Measuring Up: Should genetic testing decide who is born?" *The National*, Canadian Broadcasting News, March 11, http://www.cbc/national/news/measuringup,
Singer, Peter.
1999 *A Darwinian Left: Politics, Evolution and Cooperation.* New Haven/London.
Snyderman, Mark; Rothman, Stanley.
1986 "Science, Politics, and the IQ Controversy," *The Public Interest*, No. 83, spring, 79-97.
Sprow, Marla.
2002 "Bill could criminalize cloning for scientists," *The Michigan Daily Online*, June 10: http://www.michigandaily.com/vnews/display/2002/06/10.
Squires, Sally.
1985 "Pinpointing the Killer," *Washington Post*, May 29.
Statistical Abstract of the United States.
1982-83 Washington, D.C.
Stolberg, Sheryl Gay.
2002 Total Ban on Cloning Research Appears Dead," *New York Times*, June 14, A18.
Stone, Naomi.
2000 *Erasing Tay-Sachs Disease*, WWW.
Sutherland, Edwin H.
1914 *Criminology.* J. B. Lippincott, Philadelphia.
Thomas, Jean-Paul.
1995 *Les fondements de l'eugénisme.* Paris.
Timberg, Craig.
2003 "Williams Aims To Be Mayor of A Bigger D.C.: Attracting Residents Is Goal As 2nd Term Begins Today," *Washington Post*, January 2, A1, A11.
Traub, James.
2002 "Common Talk: In Enron-sized America, why is populism such a dirty word?" *New York Times*, Magazine Section (No. 6), October 16, 23-24.
Tucker, William H.
1994 *The Science and Politics of Racial Research*, Urbana/Chicago.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Vedantam, Shankar.
2001 "Tracing the Synapses of Our Spirituality: Researchers Examine Relationship Between Brain and Religion," *Washington Post*, June 17, A1, 9.
Velle, Weiert.
1984 "Sex Differences in Intelligence: Implications for Educational Policy," *Journal of Human Evolution*, No. 13, 109-115.
Verschuer, Otmar von.
1938 "The Racial Biology of Jews," *Forschungen zur Judenfrage*, Vol. III, Hamburg, Translated by Charles E. Weber, WWW.
Verschuer, Otmar von.
1943 *Manuel d'eugénique et hérédité humaine.* Translated by Dr. George Montandon (shown as Professor of Ethnology and Anthropology). Paris.
Vining, Daniel.
1982 "Dysgenic Fertility and Welfare: An Elementary Test," *Person. Individ. Diff.* Vol. 4, No. 5, 513-518.
Vining, Daniel.
1983 "Illegitimacy and Public Policy," *Population and Development Review*, Vol. 9., No. 1, March, 105-110.
Wade, Nicholas.
2002 "Stem Cell Mixing May Form A Human-Mouse Hybrid: Mice With Human Cells Would be Likely," *New York Times*, November 27, A17.
Washington Post
2001 "Kansas Board Revives Teaching of Evolution: New Science Standards Undo Religious Conservatives' Controversial 1999 Move,", February 15, 2001, A10; reprinted from *Los Angeles Times.*
Washington Post
Stein, Rob. "Wider Human-Chimp Gap," *Science Notebook*, September 9, A7.
Washington Post
2001 "Speaking in Fewer Tongues." 2001., June 9, A13. Special Correspondant
Washington Times
2001 "Study rejects bacterial genes claim." 2001. May 18, A10.
Washington Times
2001 "Gun deaths decline 26 percent since '93." *Washington Times*, April 13, A6.
Weingart, Peter.
2000 "Eugenics and Race-Hygiene in the German Context: A Legacy of Science Turned Bad?" 202-223, *Humanity at the Limit: The Impact of the Holocaust Experience on Jews and Christians.* Bloomington/Indianopolis.
Weingart, Peter; Kroll, Jürgen; Bayertz, Kurt.
1988 *Rasse, Blut und Gene: Geschichte der Eugenik und Rassenhygiene in Deutschland.* Frankfurt am Main.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Weinrich, James D.
1978 "Nonreproduction, Homosexuality, Transsexualism, and Intelligence: A Systematic Literature Search," *Journal of Homosexuality*, Vol. 3 (3), Spring, 275-289.
Weiss, Rick.
2002 "Free to Be Me: Would-Be Cloners Pushing the Debate," *Washington Post*, May 12, A1, A10.
Wetzstein, Cheryl.
2001 "Unwed mothers set a record for births: 33% of infants born out of wedlock," *Washington Times*, April 18, A1.
Weyl, Nathaniel & Possony, Stefan.
1963 *The Geography of the Intellect.* Chicago.
Weyl, Nathaniel.
1967 "Aristocide as a Force in History," *Intercollegiate Review*, June 1967, 237-245.
Willing, Richard.
2001 "Human Cloning Banned by House," *USA Today*, August 1, http://www.dnacenter.com/geneticnews.html.
Wright, Lawrence.
1997 *Twins and What They Tell Us About Who We Are.* New York.
Wright, William.
1998 *Born That Way: Genes, Behavior, Personality.* New York.
Yax, Laura K.
2000 "Statistical Brief: Mothers Who Receive AFDC Payments," U.S. Census Bureau, September 13, WWW.
Zoll, Rachel.
2002 "Jewish population in U.S. declining: Median age up 4 years, survey finds," *Washington Times*, October 9, A2.

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Understanding Individual Differences: Critical Human Service Component

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This paper raises questions concerning politization of social science and specifically psychology. In what is arguably a concerted attack on traditional knowledge, social scientists are increasingly encouraged to ignore the impact of neurological disorders on a person's academic and professional success. Basic data-based psychological tenets, such as the viability of general intelligence and applicability of standardized test, are assaulted as vehicles of social oppression. The author avers that misguided reform movements are creating, and will continue to create, major problems not only for mental health professionals, but, more importantly, for their clients.

Key Words: Intelligence; standardized testing; educational reform; clinical assessment; biological correlates of intelligence.

Recently I noticed a person in an adjoining restaurant booth, who reminded me of a person I had known over 30 years ago: somewhat sheepishly I asked him if his name was Turkheim and indeed it was. There's nothing strikingly unusual about Turk's facial features, and the incident prompted me to consider how we might better comprehend human diversity if internal x-rays permitted us to look inside people, and observe perceptions, values, opinions, skills, and, yes, prejudices.

Early Beginnings

Human uniqueness begins very early. Recent medical advances suggest that we may soon decode a person's genetic structure and, as one example, identify an individual likely to have a particular form of cancer many years in the future. With that knowledge, it may be possible to prescribe pills which

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prevent the disease. This is not to say that genetics explains all that we are or may become and yet I – like all of you – have personal biases, two of which appear in my remarks today. First, I believe in early prevention and intervention and second, all too often we in the helping professions fail to take sufficient time not only to understand human differences and in the process also fall short of appropriately considering neurological and genetic factors which, unless identified and included in the diagnostic process, literally foredoom well intentioned intervention strategies, which in contemporary America are largely based on environmental considerations.

Recent investigations have revealed that powerful interactions of environmental, genetic, emotional and neurological forces occur even before and certainly after conception. Historically, developmental psychologists have encountered enormous and still unresolved obstacles in comprehending not only the genetic code but also why, as the brain develops, some signaling molecules bind to receptors by attracting or rejecting, and what might be done to enhance the impact of attractive forces so that axons maintain forward thrust in completing the wiring of the brain (Hall, 2001; Stein et al, 2001). We now have a better understanding of that remarkable phenomenon.

Early during the intra-uterine stages of life, developing embryo nerve cells, like Odysseus in the ancient fable of the Trojan wars, necessarily travel great distances and withstand numerous temptations to reach their neurologically appropriate destinations. Many embryonic nerves must be good sailors indeed. Finding some targets is similar to striking the bulls-eye at 1,000 yards through a mist and even around several peninsulas. And there is no allowance for error – faulty wiring can severely impair cognitive and behavioral interactions. Throughout that early voyage, brain pairs of signaling molecules optimally interact with corresponding receptors in the neurons, as predetermined by the receptors' protein structure. In this process the axon or signal-bearing cable lines contain a special conal tip which conveys the receptors. But some molecules attract by signaling while other repel, and may or may not bind to the receptors. Consequently and if we use a geographical model, some nerve cells destined for Seattle may end up in Hong Kong, together with all that means regarding cognitive

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interactions, academic success, and self efficacy.

Most mental health providers have witnessed the tragic consequences when axons fail to switch on at the right instance, thus thwarting neuronal forward movement. In a global sense, the impact of such developments appears in maternal alcohol or cocaine abuse during pregnancy which may kill or disable millions of brain cells and prompt axons to become deaf to or to ignore molecules originally destined to enhance brain development. More specific damage may appear along a wide spectrum of exceptionalities, including children with ADHD or learning disabilities. Such conditions, affecting more children than many assume, cause windows of learning opportunities to be slammed shut early in life, sometimes before birth. In an ideal world, it is the service provider's task to discern which windows are closed and which remain open and for how long. In other words, to acquire skill in recognizing what, for individual clients, we can and cannot accomplish.

Human Diversity: Responding to Quasi Uniqueness

Regardless of our particular area of service, many of us serve individuals of diverse values, skills, and aspirations. In the enabling process we frequently fail to spend sufficient time to assess human uniqueness. This morning I discuss five controversial issues which I hope will fuel later discussion. First, several case vignettes are reviewed, using masked data: these brief case studies illustrate possible consequences of intervention strategies which fall short of appreciating human diversity. Then, secondly, I link the two vignettes to epidemiological evidence that the magnitude of human differences is far greater than often recognized. Third, Bandura's self-efficacy model is reviewed with respect to the interplay of neurological, cognitive and emotional symptoms. Next, I discuss various levels at which human differences are identified and how standardized tests, both aptitude and achievement, constitute some – and I emphasize some – of the most trustworthy and useful assessment arrows in the psychologist's diagnostic quiver for facilitating appropriate matches between a person's abilities, motivations and assigned tasks. Fifth and finally, we examine the current drive to provide educational, social, and vocational rehabilitation services, in a manner which underutilizes standardized tests and other

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statistically driven data. Here a perplexing question arises: do those of us in the helping professions shoot ourselves in the foot and create obstacles to modulating the impact of adjustment disorders by uncritically ignoring time-honored evidence of human diversity?

Case Vignettes:

Learning obstacles experienced by another person – let's call him Bill – also illustrate the interplay between environmental and biological considerations. Referred to me while in fourth grade, Bill struggled in reading, spelling and to a lesser extent in math. Until Bill was referred to me, no school representatives had interviewed his parents.

Probably all of us can recall individuals with whom we have worked and for whom in retrospect we might have facilitated greater self confidence and success, had appropriate attention been given to the interaction of neurological and emotional factors. I vividly recall memories of problems endured by Kenny, a high school classmate in my Wisconsin hometown; he seemed hopelessly incapable of learning. Confused in all academic areas and inclined to prematurely and disruptively cease problem solving, Kenny possessed little self esteem, was noticeably anxious when called upon to recite in class, anticipated failures, bullied classmates, and constructed a self-isolating wall to protect himself from embarrassment. I cannot recall a single classroom incident in which Kenny experienced an opportunity to demonstrate his advanced artistic and visual spatial skills.

Only in recent years did I learn that Kenny's schooling and emotional difficulties were very probably attributable to two primary neurological factors which had gone undetected. First and representing nomothetic considerations, Kenny was left handed and possessed greater competence in right hemispheric than left hemispheric tasks, upon which curricular success is largely dependent. Second, there were ideographic factors: a blue baby at birth, Kenny's early oxygen deprivation probably restricted acquisition of certain language skills which are highly correlated with academic success. The fact that Kenny eventually became a successful businessman, exercising acute skills in visualizing how and where future Wisconsin campsites could be constructed, suggests that he was eventually and independently capable of overcoming hurdles unwittingly erected by well

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intentioned educators and rehabilitation workers who inordinately focused on standard curricular and largely left hemispheric objectives, while ignoring evidence of markedly stronger right hemispheric skills.

From Bill's parents and former teachers I learned that Bill had been frustrated and discouraged academically since – but not before – mid-kindergarten. Resource room assistance was first provided in fourth grade, with little impact; school personnel quickly assented to my suggestions for comprehensive assessment, including a parental interview. Administration of a Wechsler aptitude measure yielded a 33-point verbal-performance split and marked impairments on the Verbal Comprehension and Freedom From Distractibility Indices. Standardized achievement evaluation also revealed wide scatter; in some curricular areas Bill performed far more competently than in others.

Certain demographics suggested the improbability of environmental explanations for Bill's learning and behavioral disorders. There was no evidence of familial learning deficits or detrimental ordinal dynamics, and Bill's four siblings were excellent students. Further, the parents reported that Bill passed the developmental milestones within normal limits until, when he was five years old, the family farm was struck by raging winds. Seeking to drive chickens back into their shed, the father hurled shingles torn from the roof of the farmhouse toward the chickens. One shingle went amiss and struck Bill in the head, rendering him briefly unconscious. After this incident, teachers reported that Bill was distractible, had trouble focusing, was seldom enthused about learning, and was fearful and anxious upon encountering even mild frustrations. Drawing upon the expanded understanding of Bill's quasi-unique learning needs, curricular strategies were revised. School-based efforts were coordinated with parental expectations; follow-up interviews revealed significant reductions in Bill's anxiety, depression, and proclivity to socially withdraw.

Integrating Biological and Environmental Data: The Bandura Factor

Well controlled studies reveal that problems such as those of Kenny and Bill are not rare: thousands of adults and children, as well as their families and school personnel, have paid a high

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price when biophysical and emotional considerations are not integrated into diagnosis and intervention. Consider what we know of only one category of neurological impairment: Attention Deficit Hyperactivity Disorder (ADHD), which has a long history marked by numerous descriptive rubrics such as brain injured and minimal brain dysfunction. Individuals with ADHD presumably comprise 3 to 5% of the population. Moreover, numerous victims of ADHD also present learning disabilities, and concurrence rates are widely believed to constitute 9 to 11% of the American population.

Considerable research indicates that – often because of neurological complications which include genetic proclivities – persons with ADHD and LD present extensive intra-individual cognitive variability, which if not accurately diagnosed can impede formulation and implementation of appropriate strategies and thus exacerbate dynamics which contribute to low self confidence or, employing a term that has gained recent coinage, self efficacy.

Albert Bandura, whose investigations have created new understandings into biophysical and emotional linkages, proposes that efficacy or positive expectations flow from a series of interrelated actions. First, when a task is performed well, efficacy expectations increase and the threat of failure subsides. This is likely to facilitate sustained effort on later tasks. Psychological arousal is more manageable if tasks are seen as attainable and if so the anxiety level declines. Moderate anxiety then facilitates positive feedback, which adds to later efficacy expectations. But – and this is important – information the person receives enhances self efficacy only if seen as reflective of a person's abilities. When individuals consider external factors responsible for success, self efficacy declines. Not surprisingly, longitudinal data indicate that self efficacy is linked to field independence and to academic and vocational success.

If self efficacy is related to one's perception of deserved success and if success is often contingent on neurological factors, when do biological factors begin to impact on human learning? For some, the beginnings are remarkably early and genetic in origin. Thus genes explain why girls with Turner's Syndrome are more successful when dealing with predominantly left than right hemispheric tasks. Failure to recognize hemispheric distinctions can increase failure rates in academic

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and other settings, reduce self confidence, and exacerbate emotions which hamper learning. In my experience, parents, school personnel, and vocational experts have generally recognized that a Turner's Syndrome child has marked difficulty on visual spatial tasks, but relative strengths in the language domain. Unfortunately, a common educational or rehabilitative response has been to ignore limitations imposed by brain structure and function and to emphasize visual-spatial enrichment activities in which the person, for neurological reasons, cannot succeed. Consequently the cycle of failure exacerbates emotional symptomotologies.

Phenylketonuria (PKU) is another of many conditions which illustrate the interaction of emotional and neurological factors. A recessive condition linked to mental retardation and a by-product of an inactive liver enzyme, PKU is a condition which illustrates the linkage of genetic/neurological disorders and emotional symptoms such as anxiety, temper tantrums, and depression and social anxiety. Years ago I worked with parents who implemented a dietary treatment program which had the potential to modulate the adverse impact of PKU on cognitive development. However, the diet was rigorous and often not implemented because of emotional factors embedded in interaction of children and their primary caretakers.

Following Bandura's formulations, we can assume a high incidence and greater severity of emotional symptoms if we fail to facilitate a reasonable concordance of what a person can do and is expected to do. It is therefore at least arguable that contemporary social science may place insufficient attention to comprehensive assessment.

The Role of General Intelligence

Should thorough assessments be implemented, *g* or general intelligence is where we should typically begin, and then proceed to appraise behaviors within the two primary domains of *g* – crystallized intelligence or well learned facts and primarily left hemispheric functions, and fluid intelligence, generally holistic in nature and reflective of right hemispheric functioning. Beyond amplifications of *g* lie a multitude of diagnostic considerations, so many in fact it is unrealistic to assume that we presently have the knowledge to assess the multiple subtle relationships that bind emotional and

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neurological phenomena.

Evidence that *g* is a robust personality component continues to accumulate; a team of German and English psychologists recently reported evidence that intense mental activities activate certain small and clearly defined regions of the frontal lobe. Science may soon document how early neuronal dynamics in the developing brain promote or deter acquisition of higher *g* functioning. Few social objectives warrant greater attention in our multicultural society, where issues arise daily with respect to such controversial issues as ethnic ratios in special education classes, in positions held in various businesses and industries, and in admission to institutions to higher education and to the professional schools. In some quarters, *g* is seen as the foe of minority groups but the reverse may be the case: recently, extensive regressions of income and occupational status on the *g* factor scores of black and white Americans produced responses contrary to popular opinions. No evidence of bias against minorities appeared for any job status at any level of *g*. Thus when income and job status were controlled and the level of *g* was factored in, whites proved to be relatively more disadvantaged (Nyborg and Jensen, 2001).

If *g* is to be employed in responsibly translating understanding of individual differences into appropriate intervention designs, it is useful to assess the manner in which the two major components of *g*, crystallized and fluid intelligence, which are roughly conceptualized into cognitive functioning of right and left hemispheric activities, present opportunities for enhancing self efficacy. The two hemispheres are not only asymmetric, they involve different perceptions of reality; each half has its specialization, despite cross hemispheric talk facilitated by the *corpus collosum*. Generally the left hemisphere, more heavily weighted in language functions and in crystallized intelligence, more significantly influences logical, analytical and sequential processing as well as retrieving, understanding, and correctly sequencing letters and numbers. With its relatively greater weight in fluid intelligence, the right hemisphere generally plays a more pronounced role in holistic and simultaneous learning as well as synthesis of visual, spatial, musical, and artistic stimuli. These basic hemispheric differences have numerous direct implications for service providers. As just one example, it is useful to recognize that

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right hemispheric lesions are likely to result in fragmentation of visual-constructive tasks.

Neurological-Environmental Connections

Dyslexia (which is not a diagnostic entity because of various cultural-specific manifestations which include genetic proclivities) provides still additional evidence of neurological-emotional interaction, especially when Bandura's formulations are considered. As one illustration of this, a recent study of Italian, English, and French dyslexic children revealed that, across nations, dyslexics were equally impaired with respect to their controls in reading and phonological tasks. Positron emission tomography scans during implicit and explicit reading revealed the same reduced activity in a region of the left hemisphere, consistent with other evidence of a universal neurocognitive basis for dyslexia in reading performance. However, a relatively higher proportion of Italian dyslexics used more shallow orthography which facilitated reading. Again it is reasonable to ask how many people have suffered emotional harm when service providers ignored neurological and genetic implications and, consistent with prevailing schooling practices, extensively focused on curricular or environmental issues.

Some psychologists skillfully differentiate subtle associations between emotional symptoms and neurological disorders by detecting localized irregularities which may occur in such brain sections as the Broca and Wernicke areas, and in assessing brain-behavioral-emotional implications depending on the speed in which a person processes information.

Gray's research goes one step further and documents how ADHD is linked to basic brain structures: in such cases environmental intervention alone is insufficient. Thus in Gray's formulations the Behavioral Inhibition System acts to inhibit behavior in new situations, such as those events which elicit fear, punishment or non-reward; the Behavioral Activation System is unusually sensitive and responsive to reinforcements and rewards. For some individuals diagnosed with ADHD, behavioral problems are inordinately linked to an under active Behavioral Inhibition System which, in the absence of our understanding of what a person experiences and can realistically be expected to accomplish, is likely to create obstacles in inhibiting and effectively employing self regulatory and executive functioning.

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Gray has also illustrated how hemispheric structures of the brain implicated in ADHD influence quasi-unique cognitive patterns. Should such patterning not be identified and appropriate educational strategies delayed or not implemented, Gray's biophysical and Bandura's more situational model both predict increased risk of low self efficacy. For non-environmental reasons, neurologically impaired children may require intervention which accommodates biological knowledge. This is because some of these children may present (1) smaller than average right frontal areas, caudate nucleus and globus pallidus, (2) somewhat larger right hemisphere than left, which is sometimes associated with inhibition problems, (3) decreased blood flow and lower glucose employment, (4) under arousal as indicated by electrical responses, assessment of heart rate, and skin conductance, and (5) unusual brain chemistry implicating the neurotransmitters, dopamine and serotonin. Any of these and related neurological conditions ideally require sensitivity and skill translating the impact of cognitive profiles into realistic learning objectives.

In deciding whether to appraise the interaction of children's neurological disorders and emotional symptoms, service providers must answer three questions. First, does brain structure and function play a significant role in emotional patterns and human learning? Second, does success promote self efficacy and, finally, do providers perform a more credible role if they assess possible linkages of a person's behavioral/learning problem, cognitive strengths and weaknesses, and self efficacy? Current literature reveals that providers are sharply divided on all three questions.

How Much Can Schools Accomplish?

Consider current schooling practices; for those of us working with adults, the dynamics can be easily translated into issues dealing with the world of work. Seeking to clarify such issues and influence public policies, James Popham recently deplored the current trend to rate or grade schools on the basis of what children learn, as judged solely by standardized test scores. Popham contends that educators are in a "no win" situation if they accept accountability based by student learning rates since most of what students learn is dependent on home influences and genetics, which include issues germane to the

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interplay of neurological disorders and emotional symptoms. Nonetheless many influential educators and a large proportion of the general public assume that schools are largely, if not exclusively, responsible for what children do or do not learn. One popular school-based reform – with variants referred to by such rubrics such as mainstreaming, untracking, and inclusion – essentially claims that all children can perform high level tasks, irrespective of individual children's personal developmental history, existing knowledge base, or what has and does occur beyond the classroom. As a classroom teacher in inner city schools I was sometimes coerced into untracking or "inclusive": effective teaching was simply impossible as I struggled, under administration fiat, to teach the same material to eighth grade students whose reading skills extended from second grade through the first year of college.

Moralizing Education and Psychology

The inclusion perspective assumes that giving students work on their existing skill level---thus adjusting curricula expectations to the diversity of student abilities and competencies and assessing biological and ecological factors—is undemocratic and aimed at perpetuating presumed social injustices. Recently at our university the administrator of an inner city school district informed prospective teachers that he regularly urges students in his district to believe that they can all become doctors: the majority of children in that school performed far below national norms. Given Bandura's formulations of self efficacy, it is difficult to imagine a better scenario for creating low self esteem and learned helplessness than urgings that they all become doctors.

Should all students be provided demanding curricula irrespective of what they are capable of learning? Many of the upper class and graduate students I teach generally respond with an enthusiastic "yes." Invariably however a high proportion of these students and future educators know little about assessment, the interplay of biology and environment, self efficacy, the dynamics of human development, the relevance of understanding the diversity of student potentials, and how one packages knowledge of student quasi-uniqueness into appropriate intervention strategies. As one illustration of this, in one of my university classes a graduate student who taught four

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autistic children questioned the value of employing standardized achievement scores · *as one tool* in guiding instruction: trained in the "problem solving approach", she taught the same material to her four special students. Open to new ideas, the student willingly agreed to secure the children's scores in one critically important curricular domain: vocabulary. To her surprise, student performance on the vocabulary test extended from the second to 62nd percentile. No aptitude scores were available for the children: more comprehensive assessment might have revealed a significant verbal-performance split, with direct neurological, emotional, and curricular implications. Given the current anti-standardized testing mood in this teacher's district, it is difficult to comprehend how teachers differentiate attainable from unattainable curricular objectives any more effectively than my inquisitive student who had given similar assignments to her four charges.

For better or worse, the "one size fits all" curriculum has marched into American schools, espoused by some of the most influential leaders of contemporary American education. Thus in a recent American Educational Research Association's presidential address, James Banks (1999) proposed that educators' greatest responsibilities are not to seek truth but to conduct studies which produce "greater social good." To reach that goal, Banks urged inclusion and thus placement of children in the same instructional groups regardless of health history, academic skills, or aptitude. Conversely Banks attacked standardized and especially aptitude or IQ tests as instructional instruments by those who "seek to disempower marginal groups and groups of color," which implies that mainstreaming opponents are "racist."

It is rather surprising that Banks, speaking as past president of the AERA, impugns as "racist" those who base educational strategies on both biological and environmental influences. Banks reserves his praise for those "anti-racist" social scientists who persuaded the Supreme Court in *Brown vs. Board of Education* that busing, or assignment of children solely on the basis of race, would significantly increase learning profiles of African American students.

Those whom Banks attacked as "racist" were simply social scientists who, calling the shots as they saw them, predicted that busing would prove unhelpful and probably even harmful to

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African American children, a prediction that has come true. (Jackson, 2000; Scott, 2000) Has forced busing enabled educators to close the ethnic achievement gap, as scientists praised by Banks anticipated? Hardly. In April 2001, the National Educational Goals Panel reported results of its seven year study of reading and math scores of the National Assessment Educational Program. And the results? Discouraging: the gap between reading scores of white and minority students widened. Said Emily Wurtz, the group's acting director: "This is puzzling because there's not a quick fix answer," (to closing the racial achievement gap). (Waterloo Courier, April 17, 2001; Zernike, 2001) Panel officials "were at a loss to explain results" and will remain in a muddled mental framework until the climate in American social science permits researchers to honestly report data, without risking *ad hominem* attacks such as exemplified by Banks' prestigious AERA presented address: coercive language can only discourage civil debate aimed at implementing effective education for all students, irrespective of such variables as social class, individual class, and ethnicity.

Current emphasis on inclusion and de-emphasis on standardized testing not infrequently pressures psychologists to ignore the impact of neurological disorders on a person's academic and professional success. Jeannie Oakes, perhaps the single-most influential mainstreaming proponent, alleges that aptitude testing is based on what she terms "such erroneous concepts" as the viability of general intelligence or *g*, that *g* is fixed early and that early learning skills are common precursors of later educational and vocational success. Intelligence tests, says Oakes, have created and perpetuated social and ethnic inequalities and bias by emphasizing the significance of heredity and biology to human development. Further, the American Psychological Association (APA) has financed publications which deny that intelligence is in part genetically determined—I must repeat the words "in part" since virtually no research validates the irrelevance of genetics to comprehending human intelligence, a relationship well established by longitudinal studies of identical and fraternal twins. Ironically, and indicative of a theoretical divide between APA leaders and members, seven separate APA divisions invited Arthur Jensen to present an address at the 2000 APA Convention, an address which focused

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on the significance of *g* to applied psychological practices. But a curtain of silence fell over that presentation, which went unmentioned by the organization's official publication, *The APA Monitor*, in its extensive report of convention highlights.

De-emphasizing Biology and Assessment: At What Price?

There is increasing evidence that large numbers of psychologists are ill-equipped to comprehend the dynamics of emotional and biological symptomatologies, and for this there is a central explanation: psychology and the social sciences have become increasingly politicized. Admittedly the line between a predominantly emotional and predominantly biological condition is often deceptively thin as witnessed by moderate but significant relationships between memory impairment and depression. But we seem to be moving toward less, not more, clinical assessment, less but not more thorough assessment. Some studies persuasively document de-emphasis in psychology training programs in such domains as administration, scoring, and interpretation of standardized tests. Certain training institutions limit assessment requirements to administration of *one* Wechsler test. Given that many psychologists rate the Wechsler test as the most useful tool in the assessment armamentarium, it is nonetheless difficult to believe that administration of one Wechsler test – whether that one test be the *WPPSI*, *WISC*, or *WAIS*, – suffices if a prospective psychologist is to obtain requisite assessment skills. Even the Wechsler, a relatively straightforward instrument, requires finely honed competencies: no single pattern exists to appraise quasi-unique patterns of brain damage, emotional, or social/culture impairments. Wechsler assessment requires not only sensitivity in identifying nuances along such variables as memory, learning, perceptual organization, problem-solving, abstract reasoning, ability to shift set, attention, concentration and perseverating behavior: the evaluator must synthesize the data and present viable reasons *why* these behaviors occur.

Referral sources understandably expect psychologists to command certain knowledge such as that people with brain injury generally perform more effectively on verbal than performance tasks. Additionally, relevant subtest patterns often warrant central considerations; as one example, Digit Span and Arithmetic scores are frequently lower in a brain damaged

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population, especially if there are left hemispheric lesions. Low scores on the Block Design subtest should be viewed as possible evidence of right hemispheric damage. Other nuances further challenge serious psychologists. Thus although the Information, Picture Completion and especially Vocabulary subtests often prove most resistive to organicity, some brain injured individuals encounter their *greatest* difficulty on the Vocabulary subtest, especially if there has been left temporal damage marked by deficits with word comprehension, retrieval, and language expressiveness: these are all behavioral domains which can significantly impact on self-efficacy, within and beyond home and school.

Critics are of course correct in pointing out limitations of standardized tests. But the larger risk lies in not recognizing how such measures can be appropriately used, not in throwing the baby out with the bathwater. Ideographic and nomothetic data reveal that a substantial number of individuals present developmental and neurological disorders with powerful biological correlates which not uncommonly result in a broader band of intra-child cognitive variation. Further, and if we accept Bandura's postulates, a person suffers lower self efficacy if his or her quasi-unique learning profile is not identified and appropriate steps not taken to match curricular expectations with what a person can realistically be expected to learn in a manner which provides more basic learning to the less experienced person, and more challenging tasks for the individual prepared to succeed in such tasks.

Standardized measures provide psychologists with some of the most demonstrably valid measures for ascertaining what a person with or without a neurological disorder can and can't do, and thus provide some of the most useful guides for appropriate intervention designed to ameliorate emotional symptomatologies. If we are to maintain psychology's presumably apolitical mission and authentically serve society and those diverse individuals who comprise it, the interactive influences of environment and biology must be addressed in civility: Let the talks begin.

References

Associated Press
2001 Report: "Learning Gap Widens." *Waterloo Courier*, April 9, p A2.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Bandura, A.
1977 *Social Learning* Theory. Englewood Cliffs, NJ: Prentice Hall, 1977.
Banks, James
1999 The lives and values of researchers: Implications for educated citizens in a multicultural society. *Educational Researcher, Vol. 27*(7), 4-17.
Gray, J. A.
1985 Issues in the neuropsychology of anxieties. In A.H. Turner & J.D. Moser (Eds). *Anxiety and the anxiety disorders.* Hillside, NJ: Lawrence Earlbaum.
Jensen, Arthur.
2000 "g: the elephant in the classroom." Invited address, American Psychological Association Divisions 5, 7, 15, 16, 17, 19, 20, 33. American Psychological Association Convention, August 5, 2000.
Groth-Marnat, Gary.
1999 *Handbook of Psychological Assessment.* New York: John Wiley and Sons.
Hall, C.T.
2001 UCSF Researchers Unscramble Nerve Cell Growth. *San Francisco Chronicle,* A3, March 11. (see also www.stgate.com/science)
Lewis, N.A. & Johnson, D.
2001 Proposal to end law group's role in screening judges: ABA would not be consulted or White House moves to fill vacancies. *New York Times,* March 17, A1.
Neisser, U.
1998 *The Rising Curve: The Long Term Gains in IQ and Related Measures.* Washington, D.C.: American Psychological Association.
Nyborg, H., & Jensen, A.
2001 Occupation and income related to psychometric *g. Intelligence, 29(1),* 45-56.
Oakes, Jeannie.
1993 Untracking evidence is there for the taking. *Educational Leadership,* October, 81-82.
Oakes, Jeannie
1985 *Keeping Track:* How *schools structure inequality.* New Haven, CT: Yale University Press, 1985.
Oakes, Jeannie.
1988 Tracking: Can schools take a different route? *NEA Today,* 1988, *Vol.66(6),* 41-47, January.
Oakes, Jeannie and Guiton, G. Matchmaking:
1995 The dynamics of high schooling tracking decisions. *American Educational Research Journal, Vol.32,* Spring 1995, 3-33.
Oakes, Jeannie.
1995 Normal, technical, and potential dimensions of creating new educational communities. *Yearbook: National Society for the Study of Education, Vol. 94,* pt 1, 1995, 1-15.
Oakes, Jeannie and Well, Amy.
1998 Detracking for high student achievement. *Educational Leadership, Vol.55,* March 1998, 38-41.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Paulesu, E. et al
2001 Dyslexia: Cultural diversity and biological unity. *Science, Vol. 291,*(5511), 2165-2167 (March 16).

Popham, W. James.
2000 "The Mismeasurement of Educational Quality." *The School Administrator,* December *1,* 12-15.

Reschly, D.J.
1998 School Psychology Practices: Is there change? Paper presented at the American Psychological Association, San Francisco, August.

Sattler, Jerome.
1992 *Assessment of Children,* Revised *and Updated Third Edition.* San Diego: Jerome Sattler Publishers.

Scott, Ralph.
1993 Untracking advocates make incredible claims. *Educational Leadership,* October, 79-81.

Scott, Ralph.
1983 *School busing and its effects on academic performance.* Washington, D.C.: U.S. Department of Education. Issue Paper #NIE P 820087. Reviews extensive data on alleged achievement benefits of forced busing and finds no evidence of a linkage between busing and academic gains. Informed of the results of this research, U.S. Department of Education officials jettisoned plans to publish results of the study.

Stein, E, Zou, Y, Pro, M. & Tessier-Lavigne, R.
2001 Binding of DCC by Nitrin to mediate axon guidance independent of adenosure A213 receptor activities. *Science, Vol. 291,* (5510), 1976-1982, (March 9).

Wagner, Mary.
1994 Disabled students in regular classes more likely to fail. AP Report, 1994 as cited in the *Waterloo Courier,* October 3.

Wicks-Nelson, R. & Israel, A.C.
2000 Behavior *Disorders of Children.* Upper Saddle River, New Jersey: Prentice-Hall.

Zernike, K.
2001 "Test results from states reveal gaps in learning." This article discusses evidence of a widening achievement gap between best and worst students, with ethnicity a primary criterion. New York Times, April 9

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A Bibliography of Selected Books Published on Eugenics in 2002

Compiled by John Glad[1]
University of Maryland

1. Böhnigk, Volker. *Kulturanthropologie als Rassenlehre: nationalsozialistische Rassenlehre aus der Sicht des Philosophen Erich Rothaker* (Cultural anthropology as racial teaching: national-socialist racial teaching from the viewpoint of the philosopher Erich Rothaker). Königshausen & Neuman. 161 p. ISBN: 3826021940 (pbk).
2. Boon, Kevin A. *The human genome project: what does decoding DNA mean for us?* Enslow Publishers, 128 p. ISBN: 076601854, $20.95.
3. Bucur, Maria. *Eugenics and modernization in interwar Romania.* University of Pittsburgh Press, 298 p. ISBN: 0822941724, $24.95.
4. Chung, Yuehtsen Juliette. *Struggle for national survival: Chinese eugenics in a transnational context,* 1896-1945, Routledge, 208 p. ISBN: 0415933668, $75.95.
5. Curry, Lynne. *The human body on trial: a handbook with cases, laws, and documents.* ABC-CLIO, 237 p. ISBN: 1576073491, $55.
6. Facing History and Ourselves National Foundation, Inc. *Race and membership in American history: the eugenics movement,* 356 p. ISBN: 096158419K.
7. Galton, D. J. *The future of human life in the 21st century,* Abacus, 300 p., 2002 and 2001, ISBN: 0349113777.
8. Habermas, Jürgen. *Die Zukunft der menschlichen nature: auf dem Weg zu einer liberalen Eugenik?* (The future of human nature: on the way to a liberal eugenics?), Suhrkamp, 163 p. ISBN: 3518583158.
9. Inhorn, Marcia Claire; Balen, Frank van. *Infertility around the globe: new thinking on childlessness, gender, and reproductive technologies.* University of California Press, 347 p. ISBN: 0520231082, $55.00, 0520231376 (pbk), $22.50.

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10. Jackson, John P. (ed.). *Science, Race, and Ethnicity: readings from Isis and Orisis.* University of Chicago Press, 452 p. ISBN: 0226389340, $50, 02263893 (pbk).
11. Kerr, Anne; Shakespeare, Tom; Varty, Suzy. *Genetic politics: from eugenics to genome.* New Clarion Press, 211 p. ISBN: 1873797257, $25.90.
12. Moore, David S. *The dependent gene: the fallacy of nature vs. nurture.* Times Books, 312 p. ISBN: 0716740249, $11.20.
13. Parish, Ruth G. *Eugenics: index of modern information with bibliography.* Abbe, various pagings, ISBN: 0788316397, $57.50 0788316400 (pbk), $47.50.
14. Quellmann, Christina. *Theodor Friedrich Ernst Heynemann: ein Leben für die Universitäts-Frauenklinik Hamburg-Eppendorf* (Theodor Friedrich Ernst Heynemann: a life for the university women's clinic Hamburg-Eppendorf). Litverlag, 285 p. ISBN: 3825857972.
15. Regal, Brian. *Henry Fairfield Osborne: race and the search for the origins of man.* Ashgate, 219 p. ISBN: 0754605876, $69,95.
16. Richardson, Angelique. *Love and eugenics among the late Victorians: science, fiction, feminism.* Oxford University Press, 272 p. ISBN 0198187009, $65.00.
17. Schneider, William H. *Quality and Quantity: the quest for biological regeneration in twentieth-century France.* Cambridge University Press, 329 p. ISBN: 052152461X, $23.95.
18. Stone, Dan. *Breeding Supermen: Nietzsche, race and eugenics in Edwardian and interwar Britain.* Routledge, 197 p. ISBN: 0853239878 0853239975 (pbk.), $42.36.
19. Virilio, Paul; Lotringer, Sylvère. *Crepuscular Dawn.* Semiotext(e), 185 p. ISBN: 158435013X, $9.83.
20. Wyndham, Diana. *Eugenics in Australia: striving for national fitness.* Galton Institute, 450 p. ISBN: 0950406678.
21. Yudell, Michael; DeSalle, Rob. *The genomic revolution: unveiling the unity of life.* John Henry Press with the American Museum of Natural History, 249 p. ISBN: 0309074363, $19.57.

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BOOK REVIEW ARTICLE

Conversations with Arthur R. Jensen
Frank Miele
Westview, 2002, 0-8133-4008-X

A Biographical Appraisal of Arthur Jensen

Leslie C. Jones[1]
London, England

Currently completing a book on mental chronometry, Professor Jensen has postponed writing his autobiography until his old, old age when those who might otherwise be offended by his reminiscences will be long gone (personal communication). Judging by his remarks about Margaret Mead in these conversations, this was a politic decision. In the meantime, those who are interested in Jensen's research and it origins will find some useful clues as to the man's personality in *Intelligence, Race, and Genetics.*

Jensen before Jensenism

When Arthur Jensen was a child, he was a loner who read voraciously and loved classical music. He preferred hiking and swimming to team games. A keen herpetologist, he undertook precocious experiments to ascertain if it is temperature or light that makes lizards go underground.

Another intriguing detail provided by Frank Miele, senior editor of *Skeptic* magazine, is that whereas Jensen's paternal grandparents were Danish, his maternal grandmother was a Polish Jew and his grandfather on his mother's side was German. As a child, he was struck by the profound differences in temperament between these two branches of his family. He remarks elsewhere that he has always been a differential psychologist in that human idiosyncrasies and individual differences have always intrigued him (Jensen, 1998a).

Classical music was Jensen's original choice as a career. But he thought again when he realised that he would never make it to the very top. This change of mind tells us something about him, as does his keen interest in high achievers and geniuses. By pursuing a career in psychology he says he was able to perform

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at a level he is truly satisfied with.

As Frank Miele contends, Jensen's development as a social scientist mirrors "the intellectual odyssey of psychology in our time". He was not always a hereditarian. When he majored in psychology at Berkeley in the 1940's, behaviourism was ascendant. Individual differences and the influence of genetic factors were almost totally neglected and Jensen was an acolyte of the Watsonian behaviorist Clark L. Hull (Jensen, 1998a). The behaviourists were primarily interested in general laws of behaviour.

Individual differences were attributed to exposure to different environmental contingencies and were treated as error variance.

Jensen may well be a "born introvert", Miele suggests. According to his sister, consulted by Miele, her brother Arthur was a solitary and generally taciturn child. And as a clinical intern at the University of Maryland's Psychiatric Institute in Baltimore from 1955-1956, he preferred dealing with data rather than psychiatric patients (Jensen, 1998a).

His training at Baltimore and at Columbia University, New York, where he was a postgraduate student of educational and clinical psychology, was informed by depth psychology. But he became increasingly disillusioned with the latter, as his doctoral dissertation, 'Aggression in fantasy and overt behaviour' (Columbia University, 1956) reveals. In this dissertation, Jensen underlined the inability of the Thematic Apperception Test[2] to predict individual differences in aggression.

In his free time at Baltimore, Jensen studied the writings of Hans Eysenck and other leading lights of the London School. For Jensen, the quantitative and experimental character of Eysenck's research on personality differences and its emphasis on genetic factors was a perfect antidote to Freudianism. And doubtless Eysenck's debunking of psychoanalysis also appealed.

From 1956 to 1958, Jensen was a post-doctoral research fellow under Professor Eysenck at the University of London Institute of Psychiatry (Maudsley). Jensen regards Eysenck as a genius and he says that that he got 90% of his attitudes towards psychology and science from his mentor.

[2] The T.A.T. is a projective test. It consists of a series of ambiguous pictures. The subject elaborates stories about them that supposedly reflect his personality/fantasies (Hilgard, 1971).

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1969 and All That

Why, Miele wonders, did a well-respected but obscure Professor of Educational Psychology at Berkeley, hitherto best known for his work on the serial position effect in learning, become embroiled in the race and IQ controversy? Jensen's opponents have generally assumed that he is a racist and a reactionary. He has been accused of colluding with the Nixon administration. The theory goes that because of the White backlash against President Johnson's Great Society programmes, President Nixon sought a scientific pretext to cut spending on them, in particular Head Start. Jensen, it is said, duly provided this pretext with his *Harvard Educational Review* article of 1969. (In fact, spending on Project Head Start went up under Nixon!).

Exponents of this particular conspiracy theory note that according to Presidential aide John Erhlichman, Richard Nixon believed that Blacks were genetically inferior to Whites and that federal programmes designed to bring educational and social parity between them, however beneficent, would fail. Jensen acknowledges that President Nixon was interested in his research on race differences. Nixon's special adviser Daniel Patrick Moynihan even had an "assistant on Jensenism". Jensen says that on one occasion he met Moynihan at the White House.

Many southerners assumed that Jensen was a covert supporter of segregated education. When Texas Congressman (subsequently President) George H.W. Bush bumped into Jensen in the Congress, he was amazed to learn that he had never set foot in the Deep South. And on failing to receive Jensen's backing, one diehard supporter of segregated education dismissed him as "just another Berkeley pinko". A lifelong admirer of Gandhi, Jensen believes that individuals should be treated as individuals regardless of class, race or nationality. He is acutely embarrassed by the unthinking support that he receives from White supremacists and reactionaries of all stripes.

Apropos 1969, another theory is that Jensen sought publicity as a route to career advancement. In this context, Miele asks Jensen why, just before the publication of his *H.E.R.* article, he gave a copy of it to a reporter from *US News & World Report*. Yet considering the importance of the issues addressed in that article, Jensen makes no apology for thus publicising its contents

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in the mass media. He insists that he neither sought nor anticipated the furore that ensued. As for some unconscious motivation, such as a need for attention or notoriety, he regards such speculation as otiose.

When you meet Arthur Jensen you soon realise that his research has no political agenda, hidden or otherwise. But Frank Miele took some convincing. At one point in their 'conversations'[3], Miele's remorseless probing provokes an expression of exasperation from his usually unflappable interlocutor, to wit, "You keep harping on politics".

For in fact Professor Jensen is thoroughly disillusioned with politics and politicians. Moreover, he despises those who do science for ideological reasons. As he observed in his 1999 Galton Lecture (Jensen, 2002), "Science deals strictly with what *is*, not with what anyone thinks *ought to be*". In *Intelligence, Race, and Genetics*, likewise, he quotes Bertrand Russell: "The man of science, whatever his hopes may be, must lay them aside while he studies nature; and the philosopher, if he is to achieve truth, must do the same". Jensen's only agenda is to bring psychology more fully into the realm of biological science.

Amongst educational psychologists in the early 1960's, the prevailing opinion was that individual and group differences in scholastic achievement are due to unequal opportunities. Two further assumptions drove compensatory education programmes: other things being equal, all normal children are alike in mental ability (Jensen, 1969); it follows that poor children and children from ethnic minorities who performed below average at school must have been denied certain critical pre-school experiences (the Deprivation Hypothesis). At the time, Jensen shared these assumptions. He voted for Johnson by postal ballot from England in 1964 and he subsequently supported President Johnson's Great Society proposals.

Audrey Shuey's *The Testing of Negro Intelligence*, published in 1966, cited hundreds of studies revealing a mean Black-White average IQ difference of 15 IQ points. However, as Jensen points out, her inference that these studies in themselves demonstrated a genetic factor was unwarranted. In theory, environmental factors might have entirely determined the B-W IQ difference. Further evidence was required before a genetic hypothesis could

[3] strictly speaking, exchanges of electronic mails

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be postulated. Then, in 1967, the United States Commission on Civil Rights reported the failure of compensatory programmes, notably Head Start, to raise the IQ and scholastic achievement of the "culturally disadvantaged". The initial gains of 5 to 10 IQ points achieved by Project Head Start did not survive one year's entry into normal school (Jensen, 1969).

In the late 1960's, researchers were investigating possible causes of the B-W IQ gap, such as the Cumulative Deficit Hypothesis. However, a genetic explanation remained strictly off limits. But Jensen could not accept that any reasonable hypothesis should be excluded on purely ideological grounds. As a child, he was thrown out of Sunday school because he refused to believe things on faith. A convinced freethinker, he regards the notion that race differences in mental ability *must* be cultural as a dogma reminiscent of creationism.

In 'How Much Can We Boost IQ and Scholastic Achievement?' Jensen emphasised the lack of hard evidence for the various *ad hoc*, non-genetic explanations of the lower average IQ of Blacks. One fashionable theory recently re-cycled by Gillborn (2002), posited low expectations of teachers as regards Black pupils. Another popular theory hinged on the prominence of "father absence" in the Afro-American population. The latter theory, however, was refuted by the 1966 Coleman Report, commissioned by Congress. This study also showed that American Indians, the most environmentally disadvantaged group in the United States, outperformed Afro-Americans on IQ tests.

Amongst the evidence adduced by Jensen in 1969 in support of a genetic hypothesis was the much greater regression of IQ to the mean (from parents to their children) amongst upper status Blacks compared to Whites; the lower average IQ of high status Black children compared to low status White children; and the behavioural precocity of Black infants (Jensen, 1969). As Eysenck (1953) has observed, regression practically never accompanies environmental influences. Indeed, an environmentalist would predict that given the opportunities of children of the higher classes, their intellectual ability would on average be at least equal to that of their parents.

In retrospect, Jensen believes that the failure of compensatory education proves that race differences in mental ability cannot be overcome by purely psychological/educational

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interventions. Inequality of educational outcome is contingent, in his judgement, on individual and average group differences in *g* (Jensen, 1991). Above a certain threshold, environmental variations cause only small variations in intelligence (Jensen, 1969). Twin studies have shown that in the range of normal homes now enjoyed by the vast majority of Black and White children, differences in family environment have minimal effect on differences in mental development. As regards the environmental factors in the B-W IQ difference, he believes that non-genetic biological factors (in particular, pre-natal and post-natal influences) are far more important than psychological, educational or social differences between families.

For Jensen, *Intelligence, Race, and Genetics* represents a popularisation of the *The g Factor* (personal information). Professor Rushton reports that the 'antagonistic' format of the book, in which Miele assiduously plays devil's advocate, has allowed several universities to address the controversial material it contains, in particular the Default Hypothesis (personal communication).

According to Jensen's Default Hypothesis, the B-W average IQ difference is determined by the same environmental and genetic factors that account for variation within the Black and White populations and in approximately the same ratios. Jones (1999) has summarised the main arguments in *The g Factor* that support the Default Hypothesis:

1. Spearman observed that when Black and White children were given a battery of ten diverse tests, the size of the B-W IQ difference varied according to each test's *g* loading (Spearman, 1927). Professor Jensen was the first commentator to grasp the significance of Spearman's observation.
2. The B-W IQ difference is greater when subjects are asked to repeat numbers in reverse order (backward digit span) compared with normal order (forward digit span). This is an example of Spearman's Hypothesis.
3. Black IQ scores have predictive validity in that they are correlated with independent measures of educational achievement and job performance. In other words, tests are not culturally biased against Blacks.

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4. Blacks, on average, have slower reaction times than Whites.
5. The B-W IQ gap has persisted despite the abolition of segregated education and other overt forms of discrimination.
6. Recent Asian immigrants to the US, on average, have higher IQ scores than Afro-Americans.
7. The mean IQ difference between White and Black children increases as you ascend towards higher levels of parental S.E.S.
8. The Minnesota Trans Racial Adoption Study showed that adoption of Black children by White, middle class families does not lead to long-term IQ gains.
9. When Blacks and Whites are matched for S.E.S. the B-W IQ difference only falls from 15 to 12 points. It cannot therefore be just a difference in socio-economic status.
10. Those Blacks in Africa who have never been subjected to slavery have lower average IQ than African-Americans who have. This finding refutes anthropologist John Ogbu's ingenious theory that the lower average IQ of the latter is a concomitant of their caste status.

However, the Default Hypothesis is not a dogma but a provisional conclusion based on the best available evidence. Jensen views science as a self-correcting mechanism. He insists that if it eventually confounds 'Jensenism', he will accept the verdict.

Looking back, Jensen makes no apology for considering the causes of the B-W IQ difference in his *H.E.R.* article in 1969. For this was then the big issue in education and racial gaps in academic performance remain a cause of great national concern. The issues raised in that seminal article determined Jensen's subsequent research and publication agenda (1998b).

The Sociology of Intelligence

Education can be viewed as primarily a mechanism that sorts children into different roles in the occupational hierarchy. *Ceteris paribus*, equality of educational opportunity will lead to inequality of educational outcome. In his *H.E.R.* paper, Jensen

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employed a telling phrase, to wit, the "occupational correlates of intelligence".

Since every complex society has been multi-tiered or pyramidal, the best we can hope for as regards equality, in Jensen's judgement, is for an occupational hierarchy based on merit. As society becomes ever more technological and information intensive, he anticipates that the *g* factor will increasingly determine the individual's place in this hierarchy. Those who lack the requisite mental skills will be increasingly marginalized, as Herrnstein and Murray (1994) maintained.

Affirmative Action and the Dilemma of Group Differences

When affirmative action involved making historically under-represented minorities aware of educational opportunities and actively recruiting members of them that could meet the usual selection standards, Jensen supported it. But he regards quota systems based on the relaxation of selection criteria for particular ethnic minorities as "unfair and anathema". They discriminate in his view against certain White and Asian candidates. They also undermine the achievement of those minority members capable of competing without the dubious benefit of positive discrimination. He witnessed the baneful effects of affirmative action at Berkeley where the college rules were changed so that students from certain ethnic minorities could not fail courses.

Another insidious effect of affirmative action, in Jensen's estimation, is that it frustrates under-qualified candidates when they eventually have to confront educational and vocational challenges without special help. The recent case of former *New York Times* journalist Jayson Blair arguably confirms Jensen's argument here. Blair, an African-American, was allegedly fast-tracked for promotion under the newspaper's diversity policy. Relatively young and unprepared for the pressures of his position, he plagiarised other journalists' copy and submitted spurious stories from locations he had not visited. Indeed, it now transpires that he had not even graduated (Burkeman, 2003; Wolff, 2003). Predictably, Blair is claiming that he is a victim of 'institutional racism' (Younge, 2003).

In *Intelligence, Race, and Genetics*, Professor Jensen points out that full siblings in the same family differ on average by as much as 12 IQ points. This is the same figure as the B-W IQ difference,

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when samples are matched for S.E.S. Inter-ethnic differences cause infinitely more concern than intra-ethnic differences because they are much more visible. Using tests for selection has an unavoidable adverse impact on lower-scoring groups, notably Blacks. In a recent paper, Jensen describes this adverse impact as the dilemma of group differences (Jensen, 2000).

Anti-hereditarian Bias in Academe, the Mass Media and Publishing

Eight publishers rejected *The g Factor.* Professor Jensen is to be spared no ignominy by his enemies, it would seem. Yet *The g Factor* has generally received excellent reviews in the technical journals and is now a citation classic. He suspects that the tendentious attacks on *The Bell Curve* may have persuaded the eight publishers in question that the concept of *g* is bogus and that race differences in mental ability must be cultural.

When he retired from Berkeley, Jensen recalls that the college discontinued his courses on behavioural genetics and theories of intelligence. He regards this failure to replace him as symptomatic of a malaise in the teaching of Psychology at the university level. He is also highly critical of the misinformation on the race and IQ controversy in the majority of undergraduate psychology text books.

As Miele remarks, all parties to this controversy discern ubiquitous bias. Yet Prof. Jensen is convinced that in education, publishing and the mass media, the views of a small, unrepresentative group of dissenters (Gould, Kamin, Lewontin, Rose etc) are treated as the mainstream position on genetics, race and IQ. Amongst behavioural scientists, in contrast, 'Jensenism' unquestionably represents the consensus. Snyderman and Rothman's 1988 survey of over 1000 experts in behavioural genetics and psychometrics showed that of the 600 psychologists surveyed, three times as many thought that both genetic and environmental factors were involved in the B-W IQ difference as those who thought it purely environmental.

Appendix B of *Intelligence, Race, and Genetics* is a statement on intelligence published by *The Wall Street Journal* in 1994 and signed by 52 experts in the field, including Jensen. The signatories maintained that *g* exists, that IQ tests are not culturally biased against African-Americans and that genetic factors could be involved in between-group IQ differences. This

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statement's carefully weighed conclusions are a world away from the mass media's studious distortions of 'Jensenism'. In the British newspaper the *Daily Mail*, for example, Jensen has been called "the Dr Strangelove of social science" (Riddell, 1999).

Dysgenics

In their concluding conversation, Miele and Jensen discuss science and policy. Jensen stands by his 1969 prediction that the failure to address the dysgenic trend within the Black population will one day be viewed as "our society's greatest injustice to Negro Americans" (Jensen, 1969). He remains deeply concerned about the differential birth rate in the Afro-American population, as revealed by the US census. If this dysgenic trend continues over several generations the Black IQ deficit will inevitably increase, as will the levels of crime, welfare dependency, unemployment and illegitimacy within the Black population. All of these social problems are inversely correlated with *g*.

Consideration of the US census data over the last 3 decades has also convinced Jensen that there is a dysgenic trend in *g* level in the American population as a whole. He takes no comfort from a study cited by Miele that emphasised the general non-reproduction of those at the very bottom of the bell curve. He points out that the data in question was gathered in a socially and ethnically unrepresentative city, Kalamazoo, Michigan.

Unlike Charles Murray, however, Jensen does not advocate eliminating welfare in order to stop dysgenic reproduction. He regards the welfare net as inseparable from a civilised society. Ideally, he would prefer that the dysgenic problem be tackled by discouraging the high birth rate of the segment of the population dependent on welfare. Because of the correlation between the intelligence of parents and that of their children and the concentration of welfare dependency in the lower 10% to 15% of the distribution of *g*, the target group for negative eugenics (discouraging the high birth rate of those dependant on welfare) is readily identifiable. However, in the present climate of opinion, Prof. Jensen does not regard such a programme as politically feasible.

In view of the importance of the level of *g* to any advanced society, Jensen thinks that the dysgenic trend in the USA could have momentous consequences. The 'advancing front of future

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civilisation may well gravitate eastwardly' and the USA could eventually devolve towards the conditions in the Third World (Jensen, 2001). Like Lynn (2001), Jensen suspects that the future might belong to China because full-blooded eugenics is probably only feasible in a totalitarian regime.

Pioneer Funding

The Pioneer Fund is one of the few agencies prepared to support research on race differences. The opponents of this research claim that there are historical links between the Pioneer Fund on the one hand and Nazi eugenics and social Darwinism on the other. However, Rushton (2002) has shown that these allegations are historically groundless. Pioneer's recent critics also fail to acknowledge both the diverse character of the eugenics movement and the heterogeneous nature of social Darwinism (Jones, 1998).

As a grantee of Pioneer, Professor Jensen has been criticised for accepting support from an organisation that was "anti-democratic", "pro-Nazi", "racist" and "white supremacist" from its inception. But he, for one, entertains no misgivings about Pioneer. Considering its small size, he regards its record as remarkable and its name apt. As for Barry Mehler's assertion that Pioneer has been "at the cutting edge of almost every race conflict in the United States since its foundation in 1937", he describes this allegation as "utterly ridiculous as well as totally false". As its previous President made clear, the Pioneer Fund is a scientific foundation and as such has never taken up a position on any political issue (Weyher, 1998).

Mindful perhaps that at least one Pioneer grantee, A. J. Gregor, supported segregated education (see Lynn, 2001), Miele wonders if Jensen vetted all of the research sponsored by Pioneer. However, as Jensen points out, such a study would have precluded him from doing his own work. Note also that a funding agency is hardly responsible for the political views of those who solicit its support.

The recent critics of Pioneer have followed in the footsteps of Gould (1981). He tried to discredit recent differential psychology by establishing spurious links and continuities with earlier racial science, in particular craniometry. Asked by Miele for his evaluation of the scientific merit of Gould's *The Mismeasure of Man*, Jensen characterises it as 'entertaining, but

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virtually worthless as scholarship'. His review of this work was a perceptive critique of the sociology of knowledge, of which Gould was an exponent (Jensen, 1982).

The Origin of the Talents: a Problem Resolved?

One of the more esoteric subjects broached in these wide-ranging conversations is the origin of special abilities. Professor Jensen agrees with Miele that the origin of the ability to learn mathematics, compose music, write poetry and draw pictures poses a problem for any Darwinian. Since these abilities only appeared very recently in human history, how could they have been subjected to natural selection? And how could the obvious differences between individuals as regards these abilities have a genetic basis?

Alfred Russel Wallace (1890) maintained that no organs, markings, instincts or habits could exist unless they were useful to the individuals who possessed them. Wallace could see no connection between artistic, mathematical or musical ability and the reproductive fitness of individuals or groups. He emphasised the fact that characteristics developed by natural selection are maintained at a high level of efficiency and are present in all individuals. The scarcity of individuals endowed with high artistic, mathematical and musical ability was further evidence for Wallace that such abilities are independent of natural selection. Given that primitive man had supererogatory abilities that subsequently proved useful, Wallace concluded that a supreme intelligence must have prepared man for life in civilised society.

Contra Wallace, Jensen speculates that the genetic and neurological basis for these specialized abilities must have been developed in our prehistoric past for other activities that were critical for survival. Thus, the modern ability to do factor analysis utilizes the neurological structures originally selected for other tasks in the remote past. Interestingly, Jensen's tentative explanation of the talents is similar to that of another convinced Darwinian, August Weismann. Weismann described the talents as an offshoot of intelligence, man's chief weapon in the struggle for existence (Weismann, 1889).

Conclusion

Many years ago, an eminent psychologist warned Jensen that if he scorned the *zeitgeist*, it would in turn scorn him. He felt

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morally bound to disregard this prophetic warning. *Intelligence, Race, and Genetics* is a vindication of a fearless seeker after truth.

References

Burkeman, O.
2003 'Jayson Blair described this scene in West Virginia-without leaving New York', *Guardian, G2*, pp.2-3, May 13th.

Eysenck, H.J.
1953 *Uses And Abuses Of Psychology.* Harmondsworth, Middlesex: Penguin.

Gillborn, D.
2002 *Education and institutional racism.* London: Institute of Education.

Gould, S.J.
1981 *The Mismeasure of Man.* New York: W.W. Norton. Herrnstein, R.J. & Murray, C.
1994 *The Bell Curve: Intelligence and Class Structure in American Life.* New York: Free Press.

Hilgard, E.R., Atkinson, R.C., & Atkinson, R.L.
1971 *Introduction To Psychology*, 5th ed. New York: Harcourt Brace Jovanovich, inc.

Jensen, A.R.
1969 'How Much Can We Boost IQ and Scholastic Achievement?', in *Environment, Heredity, and Intelligence.* Cambridge, Massachusetts: *Harvard Educational Review*, pp. 1-123.
1982 'The Debunking of Scientific Fossils and Straw Persons', *Contemporary Education Review*, Summer 1982, Vol.1, Number 2, pp. 121-135
'Spearman's *g* and the Problem of Educational Equality', *Oxford Review of Education*, vol. 17, No.2, pp.169-187.
1998a Jensen on *Jensenism*', *Intelligence*, Vol. 26, number 3, pp. 181-208.
1998b *The g Factor: The Science of Mental Ability.* Westport, Connecticut: Praeger.
2000 'Testing: The Dilemma of Group Differences', *Psychology, Public Policy, and Law*, Vol.6, No.1, 121-127.
2001 Answers to Mega Foundation Questions. Unpublished ms.
2002 'Galton's Legacy To Research On Intelligence', *Journal of Biosocial Science*, 34, pp.145-172.

Jones, L.C.
1984 *A Social Theorist In The Age Of Imperialism: The Life And Thought Of Benjamin Kidd, 1858-1916*, PhD thesis, London School of Economics and Political Science.
1998 'Social Darwinism Revisited'. *History Today*, vol.48 (8), pp.6-8.
1999 Review of *The g Factor. Galton Institute Newsletter*, June 1999, pp. 4-7.

Lynn, R.
2001 *The Science Of Human Diversity: A History Of The Pioneer Fund.* New York: University Press of America.
Eugenics A Reassessment. Westport, Connecticut: Praeger.

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Riddell, M.
1999 'Is this man [Jensen] truly the world's most loathsome scientist?', *Daily Mail*, 17 Sept. 1999.
Rushton, J.P.
2002 'The Pioneer Fund and the Scientific Study of Human Differences', *Albany Law Review*, Vol.66, number 1, pp. 207-262.
Spearman, C.
1927 *The abilities of man: Their nature and measurement.* New York: Macmillan.
Wallace, A.R.
Darwinism, London: Macmillan.
Weismann, A.
1889 'Thoughts upon the Musical Sense in Animals and Man', in *Essays Upon Heredity And Kindred Biological Problems*, 2nd ed. 1891-1892, edited by E.B.Poulton et al. Oxford: Clarendon Press, vol.2, pp.31-70.
Weyher, H.F.
1998 'Contributions To The History Of Psychology: CX11. Intelligence, Behavior Genetics, And The Pioneer Fund', *Pyschological Reports*, 1998, 82, 1347-1374
Wolff, M.
'Phonies and cronies', *The Guardian, Media*, pp.4-5, May 19th.
Younge, G.
2003 'Reporter gloats over story of his downfall', *The Guardian*, May 22nd.

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